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ABSTRACT

A research study investigated the effects of three design variables upon user evaluations of printed materials. Three handouts dealing with refrigeration, household pests, and germs were distributed to aides and low-income families participating in the Expanded Nutrition Education Program; these materials varied with respect to type size, presence or absence of illustrations, and the use of white or colored paper. Results from a questionnaire completed by aides and from interviews with the participating families showed that the use of a larger type size, of illustrations, and of colored paper each positively influenced the users' evaluations of the materials. When any of these variables were present, users tended to rate the materials as more interesting, useful, well-written, informative and easy-to-understand. (PB)

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Effects of Design Variables on User Evaluation of Printed Materials Prepared for the Expanded Nutrition Education Program in Pennsylvania

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University Park, Pennsylvania

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CONTENTS

I. INTRODUCTION..... 1

II. RESEARCH METHODS..... 3

III. RESULTS..... 7

Rate of Return..... 7

The Color Variable..... 8

Aides' evaluations..... 8

Homemakers' evaluations..... 17

The Illustration Variable..... 22

Aides' evaluations..... 22

Homemakers' evaluations..... 31

The Type-Size Variable..... 36

Aides' evaluations..... 36

Homemakers' evaluations..... 44

IV. SUMMARY AND CONCLUSIONS..... 49

Appendix A Tables

Appendix B Printed Materials Used in the Study

I. INTRODUCTION

In June of 1973, when this study was initiated, the Cooperative Extension Service of The Pennsylvania State University was serving 11,028 low-income families in 53 counties of the Commonwealth through the Expanded Nutrition Education Program (ENEP). These families were being reached through 320 ENEP Program Aides who were selected from the neighborhoods in which they work.

ENEP was established to increase the knowledge of needy families in the essentials of good nutrition, the preparation of satisfying meals, the management of available resources, and related topics. Much of this information is given to the Aides, and then to the participating homemakers, in the form of printed materials.

Some of these materials are given to the Aides in conjunction with a teleconference training session on a particular topic, such as food sanitation. Following the specialized training, Aides take the printed materials to the families in need of such information. The printed materials are used as supplementary "hand-outs" in informal educational visits. The printed information is then left with the homemakers for their further reference or study and in the hopes that they will share the information with other members of their families.

ENEP has presented the Cooperative Extension Service with a need to communicate with an audience which may not have the motivation to learn new skills or adopt new patterns of behavior.

The investigation discussed in the following pages was initiated in an attempt to determine whether elements of design (type size, illustrations, and color of paper) have an impact on the acceptance of printed materials by ENEP Aides and whether these variables have any relationship to the willingness of families served by ENEP to adopt practices recommended in printed materials they receive from the Aides.

The investigation was begun with the hypothesis that printed materials are more acceptable to ENEP Aides when they are (1) printed in large, readable type; (2) they are illustrated (even when illustrations are strictly decorative); and (3) they are printed on colored paper stock. It was also hypothesized that these same elements of publication design are related to changes in behavior of families exposed to the material--that these design variables create a more positive attitude toward the recommendations given in "hand-outs."

II. RESEARCH METHODS

Three separate hand-outs (hereafter referred to as "publications") were prepared for a training session on the topic of food sanitation. The publications were entitled Household Pests, Fight Germs, and Refrigeration and are attached as Appendix B. Two versions of each title were printed. Each title was selected for a single variable (type size, illustration or lack of it, and color of paper stock).

Version A of Household Pests was printed in black ink on 70 pound Beckett Text, Tangerine, vellum finish and version B of this publication was printed in black ink on 70 pound Beckett Text, white, vellum finish.

Version A of Fight Germs was printed with a decorative illustration and version B of this publication was not illustrated.

Version A of Refrigeration was printed with smaller type than was used for version B of the same publication. Type for version A was 10 point Helvetica Light, set on a 20-pica margin. Type for version B was 14 point Helvetica Light, also set 20 picas wide.

There were no other variables in design or content, except in the case of Fight Germs, the illustrated version of which had information printed on both sides of the sheet, while the nonillustrated version was prepared as

a single-page publication. An error in printing resulted in the reverse side being printed on both versions, so the information contained in the right hand column of version B also appeared on the back of the sheet.

There were 51 counties in 36 reporting units participating in the food sanitation training between March 30 and June 1, 1973. These reporting units were divided into six groups of equal size and received the publications as indicated in Table 1.[1] No group received version A of all three titles and no group received version B of all three publications.

Each version of each title, and each combination of titles and versions, were submitted to equal numbers of respondents to randomize any effect of intrinsic interest in subject matter.

Aides were asked to complete an evaluation form for each of the publications. The Aides were not aware of the variables under study, nor did they know that another version of each title existed.

The Aides were then asked to participate further in an evaluation of the publications by interviewing five homemakers each after the clientele had an opportunity to review the material and make use of the recommendations

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[1] Appendix A

contained therein.

The interview questionnaire was given to the Aides with written instructions on how to conduct the interviews. These instructions were supplemented by individual instruction in the form of answering specific questions via telephone during the teleconference training.

The evaluation form was selected for determining the attitudes of Aides because they were accustomed to being asked to complete similar forms in evaluation of the training they receive.

The questionnaire-interviewer technique was selected for determining homemakers' attitudes and behavior because the ENEP Aides already have established rapport with the families they serve.

It was recognized that a high degree of interviewer bias could be introduced into the investigation and that respondents might try to give the "right" answers to the Aides in reporting their own adoption of recommendations given through the ENEP program. However, the Aides were considered to be the most productive interviewers because of their rapport with the homemakers and the personal interview was expected to yield more data than would a mail questionnaire or telephone interview.

The questionnaire designed for use by the Aides in conducting interviews with the homemakers combined the

question-answer format with a provision for the Aides to act as observers in reporting any changes in behavior which may be related to the printed materials under study.

III. RESULTS

Rate of Questionnaire Return

ENEP Aide evaluations were anticipated as follows: Household Pests version A, 168; Household Pests version B, 167; Fight Germs version A, 168; Fight Germs version B, 167; Refrigeration version A, 167; and Refrigeration version B, 168.

ENEP Aide evaluations were received as follows: Household Pests version A, 119; Household Pests version B, 124: Fight Germs version A, 126; Fight Germs version B, 118; Refrigeration version A, 113; Refrigeration version B, 129.

Factors having an effect on the rate of return from the Aides included turnover among individuals employed in the program. Some counties had more Aides in their employ than anticipated and others had fewer. Another factor which lowered the number of returns was the reluctance of Aides in Chester and Lawrence counties to participate in the evaluation.

It was anticipated that 1,675 completed questionnaires would be received when interviews with homemakers were completed in the 36 reporting units. Questionnaires received totaled 988. Numbers of titles and versions as discussed in the interviews represented by the returned questionnaires were as follows: Household Pests version

A, 528; Household Pests version B, 461; Fight Germs version A, 484; Fight Germs version B, 504; Refrigeration version A, 473; and Refrigeration version B, 514. Some Aides completed fewer than five interviews and no interviews were conducted with homemakers in Chester, Greene, and Lawrence counties.

Aides in Greene and Lawrence counties reported that they believed homemakers would be insulted if they were given publications which implied their homes fostered germ growth and household pests. Homemakers in Lawrence County received the materials by mail because the Aides believed the information was needed, but were reluctant to discuss the subjects with homemakers on an individual basis because of perceived sensitivities.

The Color Variable

Aides' evaluations

Aides evaluating the color version of Household Pests (sample A) and those evaluating the version printed on white paper (sample B) reported a high perceived need for the information. The majority of respondents in each sample reported that from many to all of the families they serve needed the material. Only slightly over 7 percent in each sample reported that only a few of the families needed it, while 21 percent in group A and 19 percent in the B sample reported that only some of the families need-

ed the information.[2]

Expressed need for the information from homemakers was also high in both samples. Only 14.3 percent of the sample A respondents and 15.3 percent of the respondents in sample B reported that they had received no questions about the subject. The majority of respondents in each sample ranged from a few to many questions. Almost 12 percent of the respondents in sample A and close to 15 percent of the respondents in sample B indicated that they had received very few questions about household pests.[3]

In terms of the publication's content, respondents in both samples indicated that the material would be useful in their program. More than 35 percent of the respondents in sample A and over 58 percent of those in sample B indicated that the publication would help answer questions very well. More than 45 percent of the respondents in sample A and about 35 percent of the respondents in sample B said the publication would serve their needs fairly well. Just over 3 percent of sample A and less than 1 percent of sample B said the publication was of little help, while none of the respondents in either sample indicated that the material could not be used.[4]

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[2]See Table 2, Appendix A

[3]See Table 3, Appendix A

[4]See Table 4, Appendix A

More than 80 percent of the respondents in each sample believed that the publication contained an adequate amount of information. Only one respondent in each sample said there was somewhat more information than needed. Over 9 percent of those evaluating the color version and more than 7 percent of those who saw the white version said there was somewhat less information than needed, while almost 6 percent of sample A and about 6.5 percent of sample B said there was too little information given in the publication.[5]

The majority of respondents in each sample felt that the material was written well. Almost 39 percent of sample A and close to 30 percent of sample B said it was written fairly well. None of the respondents in sample A said the material was written "poorly" or "very poorly," while one respondent in sample B said the publication was poorly written. None in sample B said the material was very poorly written.[6]

In terms of need and evaluation of the publication's content, responses were similar among those receiving the material printed on colored paper and those seeing it printed on white paper.

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[5] See Table 5, Appendix A

[6] See Table 6, Appendix A

The majority of respondents in each sample also stated that the publication was very easy to read and understand. Just over 68 percent of those receiving the material on colored paper gave this response, while almost 75 percent of those receiving the version printed on white paper said it was easy to read and understand.

Slightly more than 26 percent of sample A and almost 21 percent in sample B said the publication was "fairly easy" to read and understand, while more than 4 percent in sample A and about 2.4 percent in sample B said it was a little difficult. None of the respondents in either group felt that the publication was "very hard" to read.[7]

The general opinion that the publication was easy to read and understand, given in response to question 6 on the questionnaire, was confirmed by respondents in both samples by the responses to question 7: "Could the publication be made easier to read and understand?"

More than 13 percent of those evaluating the version printed on colored stock, and slightly more than 7 percent of those who received the white version said the publication could be improved in this respect. Just over 20 percent in each sample said they had no opinion on the question.[8]

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[7] See Table 7, Appendix A

[8] See Table 8, Appendix A

Of those suggesting ways to make the publication easier to read and understand, none in either sample suggested changing the color of paper.[9]

Of the sample A respondents making suggestions, 6 said more illustrations were needed, 3 suggested a different illustration, and others suggested including specific recommendations for pesticide usage or listing specific diseases that can be spread by household pests.

Of the sample B respondents making suggestions for improvement, 2 said the illustration should be changed, 3 felt the publication should be made available in a Spanish language version, and one response each was given for greater brevity, larger type, and additional information.

In estimating the degree of acceptance and use of the material by homemakers, the majority of respondents in each sample believed that the people they serve would read most or all of the material. Close to 28 percent of the respondents in each sample believed that homemakers would read only some of the material. Only one respondent in each sample felt that the homemakers wouldn't read any of the material.[10]

The Aides' estimation of their audience's retention

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[9] See Table 9, Appendix A

[10] See Table 10, Appendix A

of the information did vary. Those evaluating the version printed on white paper had a greater tendency to say that most homemakers would remember what they read. About 22 percent of those evaluating the colored version and over 33 percent of the respondents in sample B gave this response.

About 17 percent in sample A and over 9 percent in sample B thought many would remember what they read. The greatest number of respondents in each sample said only some would remember and only one respondent in each sample said none of the homemakers would remember what they read.[11]

In terms of persuasiveness, more than 20 percent of sample A and almost 35 percent of sample B thought the publication was "very convincing." More than 63 percent of those evaluating the colored version, and just over 49 percent of those who saw the material printed on white paper called the publication "convincing."

About 2.5 percent of sample A and over 4 percent of sample B said the material was only "slightly convincing." An equal number in sample A (2.5 percent) said the material was "not convincing at all," while only one respondent in sample B gave that response.[12]

The general opinion that the publication was convincing was confirmed by responses given to question 12:

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[11] See Table 11, Appendix A

[12] See Table 12, Appendix A

"Could the publication be made more convincing?" The majority of respondents in each sample said it could not be made more convincing.

Slightly more than 14 percent of those receiving the colored version, and almost 9 percent of those seeing the material printed on white paper said the publication could be made more convincing.

Better than 30 percent of the respondents in sample A and almost 25 percent of those in sample B said they had no opinion on the question.[13]

Of those making suggestions for improving the persuasiveness of the publication, none in sample A and only one respondent in sample B mentioned color.[14] That single response was a suggestion that the "bullets" would be more effective if the color was different.

Of the 18 respondents in sample A who offered some suggestions, 6 said more information was needed, 9 said a different illustration would help, 2 said more illustrations were needed, and one response was incomplete.

Two respondents in sample B suggested changing the illustration, 5 called for more information, and one each suggested a Spanish version, less information, and printing the material on one side of the sheet.

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[13] See Table 13, Appendix A

[14] See Table 14, Appendix A

A higher percentage of those receiving the colored version felt that the publication could be called "very attractive or "attractive enough." Less than 6 percent of those in sample A said the publication was only "slightly attractive," while more than twice as many (almost 13 percent) of those evaluating the white version gave this response.

Almost 2.5 percent of sample A respondents said the publication was "slightly unattractive," while more than 7 percent of the group B respondents gave that response. More than 6.5 percent of sample A and over 8 percent of sample B said the publication was "unattractive" or "very unattractive."[15]

Almost 16 percent of the respondents in sample A and close to 22 percent of those in sample B said the publication could be made more attractive.[16]

Four respondents in sample A said the publication would be more attractive if it were printed on a different color of paper. Almost two-thirds of the sample B respondents suggesting improvements said a change in the paper color would improve the attractiveness of the publication.[17]

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[15] See Table 15, Appendix A

[16] See Table 16, Appendix A

[17] See Table 17, Appendix A

Other suggestions from those evaluating the colored version included 11 recommendations that the illustration be changed, 2 said more illustrations were needed, and 2 said the publication should be unattractive.

Three respondents in sample B said the publication should be unattractive, 4 suggested altering the illustration, 2 said more illustration was needed, and 1 suggested larger type.

More than 30 percent of those receiving the material printed on colored stock listed color as the thing they liked best about the publication, while only slightly more than 3 percent of those evaluating the version on white paper said color was what they liked best.

The majority of both samples listed something other than color when reporting what they liked best about the publication.[18] Other responses included the illustration, content, clarity of message, and expressions of complete satisfaction with the publication.

Almost 14 percent of those receiving the material printed on white paper said color was what they liked least about the publication. None of the respondents in sample A said they disliked the paper color. The majority of each sample didn't respond to the question or expressed complete satisfaction with the publication.[19]

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[18] See Table 18, Appendix A

[19] See Table 19, Appendix A

Among the things listed by both groups (aside from color) when reporting what they liked least about the publication were the illustration, too little or too much information, and a feeling that the homemakers they serve would be highly sensitive about the topic.

Homemakers' evaluations

More than 76 percent of the homemakers receiving the colored version remembered the publication, while about 64.4 percent of those seeing the white version remembered it. Close to 7 percent in each sample said it was the only one of the three publications they could remember.[20]

Of those receiving the color version, 28 percent said they liked Household Pests best; more than 33 percent of those receiving the white version said this publication was the one they liked best of the three.

Just over 1 percent (2 respondents) of sample A gave color as their reason for preference, while about 3.3 percent (5 respondents) in sample B said they liked Household Pests best because it was printed on white paper. Over 88 percent of the homemakers in each sample who said they liked Household Pests best gave reasons other than stock color for their preference.[21]

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[20] See Table 20, Appendix A

[21] See Table 21, Appendix A

Of the 131 homemakers in sample A who gave other reasons for their preference, 66 mentioned content, 57 said they needed the information, 6 said the illustration made the difference, and 2 said they didn't know why they liked this publication best.

Of 135 respondents in sample B giving reasons other than stock color for their preference, 53 mentioned the content, 44 said they needed the information, 31 said the illustration made the difference, and 7 said this publication was easier to read and understand than the others.

Close to 19 percent of the homemakers who received the colored version said Household Pests was the publication they liked least of the three. Just over 22 percent of those evaluating the white version gave this response.

None in sample A gave stock color as a reason, while close to 4 percent of the homemakers in sample B said they would have liked the publication better if it were printed on colored paper. Exactly 87 percent of the sample A respondents and about 80 percent of the sample B respondents listing reasons for liking Household Pests least mentioned reasons other than stock color.[22]

Of the 100 homemakers in group A saying they liked this publication least, 42 said it was because they didn't need the information it contained. There were 25 who said

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[22] See Table 22, Appendix A

they didn't like the topic; 6 said there wasn't enough information presented; 4 didn't like the illustration; 4 said it was too difficult to control pests; 2 said they didn't know why they liked this publication least; and 1 didn't agree with the information presented in the publication. There were two uninterpretable responses and one incomplete response, while 13 failed to give reasons why they liked Household Pests least of the three.

Of 102 respondents in sample B saying they liked this publication least, 25 said it was because they didn't need the information. There were 36 who said it was because they didn't like the topic; 8 said there wasn't enough information given in the publication; 6 didn't like the illustration; 3 said it was too difficult to control pests; 3 said they weren't interested in the topic; 1 said there was too much information presented; and 16 didn't offer a reason for liking this publication least.

When asked what they learned from this publication, more than 77 percent of those receiving the color version and over 78 percent of those evaluating the white version mentioned information contained in the publication.[23] Of these respondents, over 30 percent in sample A and more than 27 percent in sample B were able to list additional information.[24]

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[23] See Table 23, Appendix A

[24] See Table 24, Appendix A

Close to 89 percent of those evaluating the color version and almost 84 percent of sample B said they found the publication easy to read and understand.[25] Of those saying they didn't find it easy to read and understand, just over 6 percent of sample A and more than 7 percent of sample B recommended printing the material on a different color of paper to make it easier to read. Over 26 percent of the sample A respondents and close to 63 percent of the sample B respondents making suggestions for improving the readability of the publication mentioned something other than stock color. More than 66 percent of the respondents in group A who said the publication was not easy to read and understand failed to respond when asked how the publication could be improved.[26]

Of the 15 respondents in sample A asked to make suggestions, only one commented on color of stock; 2 recommended larger type; 1 said more information was needed; 1 said he or she didn't know how the publication could be improved; and 10 failed to respond.

Of the 27 respondents in sample B asked to offer suggestions, 7 said the material should be presented in a Spanish language version; 4 said more information would help; 2 called for more illustration; 1 suggested more

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[25] See Table 25, Appendix A

[26] See Table 26, Appendix A

white space; 1 said the subject matter should be changed; 1 suggested simpler language; 1 said he or she didn't know what to suggest; and 8 failed to respond.

The majority in each group said the publication contained just enough information. About twice as many of the homemakers receiving the publication on white paper said there was slightly too much or too much information. Just over 14 percent of sample A and close to 13 percent of sample B said the publication contained a little less than enough, or far too little information.[27]

When asked if they had started doing anything different as a result of reading Household Pests, close to 44 percent of those receiving the color version and about 33 percent of those who received the white version said yes. When asked to explain, just over 3 percent of the respondents in sample A and close to 2 percent of the respondents in sample B who said they had changed their behavior mentioned something unrelated to the publication. Aides reported observed changes in behavior on just over 12 percent of the sample A returns and about 9.5 percent of the sample B returns.[28]

The differences between homemaker-reported and Aide-

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[27] See Table 27, Appendix A

[28] See Table 28, Appendix A

observed changes in behavior do not necessarily represent contradictory responses. Many of the things mentioned by homemakers--such as the use of sprays, powders, and aerosols--could be performed without coming to the attention of the ENEP Aides.

The Illustration Variable

Aides' evaluations

As was the case with the publication entitled Household Pests, perceived need for information contained in Fight Germs was high in both samples. No respondent in either sample felt that none of the families needed the information. The majority of respondents in each group said from most to all of the families they serve were in need of the information.

More than 13 percent of the Aides evaluating the illustrated version (sample A) and better than 20 percent of those receiving the nonillustrated version (sample B) said many families needed the information. About 16 percent of each sample said only some families needed it.

Almost 4 percent in sample A and close to 2 percent in sample B said only a few families required information on fighting germ growth in the home.[29]

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[29] See Table 29, Appendix A

Expressed interest in the topic was also high in both samples, with the majority of respondents in each indicating they had received from a few to many questions about the subject from the families they serve. Slightly over 11 percent of the sample A respondents and almost 13 percent of the sample B respondents indicated they had received very few questions. Close to 20 percent of each sample said they had received no questions on the subject.[30]

In evaluating the publication's content, more than 60 percent of the Aides receiving the illustrated version said the publication helped answer questions very well. Only 36 percent of the Aides who received the material without an illustration gave this response. Close to 46 percent of the sample B respondents said the publication would serve their needs fairly well, which compares with about 27 percent in sample A.

A far greater percentage of those evaluating the version without illustration said it was only of some help, while more than twice as many of those receiving the illustrated version indicated it was of little help. None of the respondents in either sample felt that the publication would be of no use in their program.[31]

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[30] See Table 30, Appendix A

[31] See Table 31, Appendix A

The majority of respondents in each group said the publication contained enough information. Only one of those who received the illustrated version and none in sample B said too much information was presented. Close to 3 percent in each sample said there was somewhat more information than needed.

Over 10 percent of those evaluating the illustrated version said there was less information than needed, while about 6.8 percent of the Aides in sample B gave this response. About 11 percent of sample A and close to 17 percent of sample B said there was too little information presented in Fight Germs.[32]

Over 69 percent of those evaluating the illustrated version said the material was written very well, while just over 44 percent of the sample B respondents gave this response.

About 29 percent of those receiving the illustrated version said the material was written fairly well, while more than half of those receiving the material without illustration gave this response. The majority of each sample believed the material was either very well or fairly well written. One respondent in sample A said the publication was poorly written, while this response accounted for more than 4 percent of the returns from those evaluating the nonillustrated version.[33]

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[32] See Table 32, Appendix A

[33] See Table 33, Appendix A

A majority of respondents in each sample said the publication was very easy to read and understand. Close to 16 percent of those evaluating the illustrated version and more than 38 percent of the Aides in sample B said the publication was fairly easy to read and understand. Fewer respondents in group B found it a little difficult to read and understand, while this sample returned the only response indicating the publication was very hard to read.[34]

The opinion that Fight Germs was very easy to read and understand was confirmed by respondents in sample A, 58 percent of whom indicated they didn't think it could be made easier to read and understand. In sample B, on the other hand, less than 50 percent of the Aides said the publication couldn't be improved in this respect.[35]

Of the sample A respondents offering suggestions for making the publication easier to read and understand, more than 2 out of 3 (about 13.5 percent of the total sample) suggested changing the illustration. The percentage of Aides in sample B suggesting an illustration (15.2 percent of the total sample) was only slightly higher than the percentage of sample A respondents who thought the illustration should be changed.[36]

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[34] See Table 34, Appendix A

[35] See Table 35, Appendix A

[36] See Table 36, Appendix A

Other suggestions from Aides in sample A included 6 asking for more information, 3 suggesting larger type, and 3 suggesting that the paper color be changed.

Other suggestions from Aides in sample B included 7 recommendations that stock color be changed, 2 said the material should be printed on only one side of the sheet, and 4 asked for more information. Neither of those who said all the information should be on one side indicated any awareness that the information on the reverse side repeated what appeared in the right hand column on the front.

In estimating audience acceptance and use of the information, more than 20 percent of the Aides in sample A said homemakers would read all of the publication, while almost half as many (about 11.9 percent) of those evaluating the nonillustrated version gave this response. Over 49 percent of sample A and just over 37 percent of sample B said homemakers would read most of the material. About one-fourth of those evaluating the illustrated version and almost 47.5 percent of the sample B respondents said only some of the material would be read.[37]

The estimation of homemakers' retention of information contained in Fight Germs was only slightly lower in the sample evaluating the version without illustration.[38]

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[37] See Table 37, Appendix A

[38] See Table 38, Appendix A

In terms of persuasiveness, the majority of Aides in each sample felt that the publication was convincing. More than 21 percent of those receiving the illustrated version said it was very convincing, while only about 9.3 percent of those evaluating the nonillustrated version gave this response.

A greater percentage of those in sample B said the publication was only somewhat or slightly convincing. None of the Aides in sample A said Fight Germs wasn't convincing at all, while better than 4 percent of the Aides evaluating the nonillustrated version gave this response[39]

The percentage of respondents in each sample who said the publication could be made more convincing was about equal.[40]

Most of the Aides in each sample who made suggestions for making the publication more convincing commented on illustration. While 24 of the Aides in sample B said an illustration was needed, 21 respondents in sample A said a different illustration would make the publication more convincing.[41]

Other responses from Aides in sample A included 14

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[39]See Table 39, Appendix A

[40]See Table 40, Appendix A

[41]See Table 41, Appendix A

requests for more information and one for a change in the color of paper. Two respondents said the information should be on one side of the sheet and two said key words should be in bolder type.

Of the Aides in sample B mentioning something other than an illustration, all said more information was needed. Three also suggested more color and there was a suggestion that larger type be used.

A far greater percentage of those receiving the version with illustration said the publication was very attractive. Almost 35 percent of the Aides in sample A gave this response, while just over 14 percent of the Aides in sample B said the publication was very attractive. Almost an equal percentage of respondents in each sample said the publication was attractive enough, while twice as many of those evaluating the nonillustrated version said it was only slightly attractive. The only respondents saying the publication was unattractive or very unattractive were among those evaluating the nonillustrated version and accounted for about 9.3 percent of the B sample.[42]

Almost twice as many Aides who received the nonillustrated version said Fight Germs could be made more attractive.[43]

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[42]See Table 42, Appendix A

[43]See Table 43, Appendix A

The greatest number of suggestions for improving the attractiveness of Fight Germs from sample B were to have the publication illustrated. These responses accounted for more than 36 percent of the total B sample. The majority of suggestions from those evaluating the illustrated version were for changing the illustration.[44]

Other responses from Aides in the A sample included 2 suggestions that the ink color be changed, 3 said the color of paper should be changed, 2 suggested varying the type size, and 1 said the material should have been put on one side of the sheet.

Other responses from those who received Fight Germs without illustration included 4 suggestions that it be printed on a different color of paper, 3 requests for more information, and 1 suggestion that the publication be "simplified."

Better than 15 percent of those receiving the illustrated version said the illustration was what they liked best about Fight Germs.[45] Of those in sample A listing other items of preference, 42 mentioned content, 26 commented on clarity of message, and 26 mentioned the paper color. Other considerations included brevity, size of type, and general appearance.

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[44] See Table 44, Appendix A

[45] See Table 45, Appendix A

Among those who received the nonillustrated version were 51 who said the information was what they liked best about Fight Germs. Clarity of message was listed by 24 Aides in this group and 21 said they liked the paper color best. Five respondents said they liked everything and other considerations from Aides in sample B included size of type, brevity, and format.

More than 20 percent of those who received the publication without an illustration said the lack of illustration was what they liked least about Fight Germs.[46] Over 16 percent of the sample A respondents said they didn't like the illustration.

Other items listed as being liked least by sample A respondents included 16 complaints that there wasn't enough information presented, 4 disliked the color, 2 said the material should have been on one side of the sheet, 1 said it should be in Spanish, 1 said it was too sensitive a topic to discuss with homemakers, and 1 complained that the paper wasn't punched for a 3-ring binder.

More than 33 percent of sample B respondents commented on something other than the lack of illustration. Among these responses were 9 saying there wasn't enough information, 8 didn't like the color, 7 said Fight Germs could be more attractive but didn't mention illustration,

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[46] See Table 46, Appendix A

color of ink or paper, or any other specific remedy.

There were 5 Aides in sample B who mentioned the information repeated on the back of the sheet and listed this error as the thing they liked least about Fight Germs. Three said the type was too small, 3 said there was too much information, 2 said there was too much wasted space, 2 gave irrelevant comments about the questionnaire, and 1 said the entire publication was disliked.

Homemakers' evaluations

More than 68 percent of the homemakers receiving the illustrated version and about 66 percent of those getting the version without illustration remembered Fight Germs. About 5.5 percent in sample A and close to 4 percent in sample B said this was the only one of the publications they could remember.[47]

Close to 22 percent of those receiving the version with illustration, and just over 23 percent in sample B said Fight Germs was the publication they liked best of the three. None of the sample A respondents listed the illustration as their reason for preference.[48]

Of the 105 homemakers in sample A saying they liked Fight Germs best, 57 listed content as their reason; 19

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[47] See Table 47, Appendix A

[48] See Table 48, Appendix A

said they needed the information; 4 said they liked the color of stock; 4 mentioned clarity of message; 3 said they didn't know why they liked Fight Germs best; and 10 didn't respond when asked why.

Just over 14 percent of sample A and close to 18 percent of sample B said this was the publication they liked least of the three. Of those in sample A who gave this response, over 10 percent said they disliked the illustration. Of the homemakers in sample B who said they liked Fight Germs least, close to 27 percent said it was because there was no illustration. Over 72 percent of the homemakers in sample A and more than 64 percent of those in sample B who said they liked Fight Germs least gave reasons other than dissatisfaction with the illustration or lack of it.[49]

Of the homemakers in sample A giving other reasons for liking this publication least, 18 said it was because they didn't need the information; 6 said there wasn't enough information; 7 mentioned content; 4 didn't like the paper color; 3 said they couldn't understand the publication; 3 said the subject didn't interest them; 2 said the publication was too complicated; 2 said it was too difficult to follow the advice given; 1 said that it was too juvenile; and one said he or she didn't know why

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[49]See Table 49, Appendix A

the publication wasn't liked as well as the others. Two uninterpretable responses were given and 12 respondents didn't say why they liked Fight Germs least.

Of the sample B respondents mentioning something other than the lack of illustration as their reason for not liking Fight Germs as well as the other publications, 18 said they disliked the color; 13 said they didn't need the information; 8 mentioned content; 5 said there wasn't enough information; 3 said they didn't find the topic interesting; 2 said the information was too basic; 3 mentioned that information was repeated on the back of the sheet; 1 said there was too much information; 1 said only that the publication was unattractive; 1 said it was too hard to follow the advice given; 2 said they didn't know why they liked Fight Germs least; and 8 failed to respond.

When asked what they learned from Fight Germs, close to 82 percent of the homemakers in sample A and just over 80 percent of those in sample B mentioned information contained in the publication.[50] Of these respondents, about 39 percent in sample A and over 29 percent in sample B were able to list additional information when asked if there was anything else they remembered.[51]

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[50] See Table 50, Appendix A

[51] See Table 51, Appendix A

About 86.5 percent of the homemakers who received the illustrated version and close to 84 percent of thos in Sample B said they thought the publication was easy to read and understand.[52]

Of those saying Fight Germs wasn't easy to read and understand, over 13 percent (3 respondents) of those who received the illustrated version said more illustrations would help, while close to 19 percent (7 respondents) of sample B said the publication would be easier to read and understand if it were illustrated.

More than 68 percent of the sample A respondents and close to 73 percent of those in sample B suggested something other than illustration when considering what could be done to improve the readability of Fight Germs.[53]

Of the homemakers in sample A offering other suggestions, 8 recommended a Spanish language version; 2 said more information was needed; 2 suggested changing the paper color; and 1 suggested larger type. There were two respondents who said they didn't know how Fight Germs could be made easier to read and understand and four failed to respond.

Of those in sample B making suggestions other than illustration, 19 said the stock color should be changed;

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[52]See Table 52, Appendix A

[53]See Table 53, Appendix A

4 suggested larger type; 1 said more information would help; and 1 suggested a single column format. There were two respondents who said they didn't know how to make it easier to read and understand and three failed to respond.

More than 76 percent of the homemakers in sample A and over 73 percent of those receiving the nonillustrated version of Fight Germs said the publication contained enough information. Other evaluations of the amount of information presented in the publication were distributed almost equally between the two groups.[54]

When asked if they had started doing anything different as a result of reading this publication, more than 45 percent of the homemakers who received the illustrated version and close to 36 percent of those in sample B gave a "yes" answer.

When these respondents were asked to explain, about 4.5 percent of those in sample A and over 7 percent of those in sample B mentioned something unrelated to the publication in question. Aides reported observed changes in behavior on only about 12 percent of the questionnaires from each sample.[55] It should be noted again that the statistical differences between homemaker-reported and Aide-observed changes in behavior do not necessarily represent contradictory responses.

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[54]See Table 54, Appendix A

[55]See Table 55, Appendix A

The Type-Size Variable

Aides' evaluations

Again, perceived need for the information contained in the publication being evaluated was high in both samples, with the majority in each saying that from many to all of the families they serve need the information.

Close to 26 percent of each sample indicated that only some needed it, and about 9 percent in each sample said only a few did. None of the Aides evaluating the version printed in 10 pt. type (sample A) and only one of those seeing the information in 14 pt. type (sample B) said there was no need for this information among the families served.[56]

Expressed need for the information was also high in both samples. The majority of respondents in each said they had received from a few to many questions on the subject of refrigeration.[57]

In terms of content, Aides in both samples reported that Refrigeration would be of use in their program. Almost 34 percent of the Aides in sample A and over 40 percent of those evaluating the larger type version said this publication would help answer questions very well.[58]

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[56] See Table 56, Appendix A

[57] See Table 57, Appendix A

[58] See Table 58, Appendix A

The majority of each sample said Refrigeration contained enough information. Only one respondent in sample A and none of those evaluating the version in larger type said there was too much information. Over 21 percent of sample A and close to 13 percent of sample B said the publication contained too little information.[59]

Close to 50 percent of those evaluating the version in 10 pt. type and almost 63 percent on sample B said the material was written very well. More than 42 percent of the Aides in sample A and about 35 percent of sample B said Refrigeration was written fairly well. A higher percentage of those receiving the smaller type version said the material was written poorly or very poorly.[60]

The majority of respondents in each sample said the publication was easy to read and understand. However, this response appeared with greater frequency among those receiving the material in 14 pt. type. Those receiving the smaller type version showed a greater tendency to rate the publication from very hard to only fairly easy to read and understand.[61]

Almost 32 percent of those seeing Refrigeration in

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[59] See Table 59, Appendix A

[60] See Table 60, Appendix A

[61] See Table 61, Appendix A

10 pt. type said the publication could be made easier to read and understand, while just over 17 percent of the Aides in sample B felt that this aspect of the publication could be improved.[62]

Of those in sample A offering suggestions for making Refrigeration easier to read and understand, about 3 out of 5 suggested something other than larger type. Those suggesting larger type, however, accounted for more than 20 percent of the total sample evaluating the smaller type version. None of those seeing the material printed in 14 pt. type suggested changing type size to make Refrigeration easier to read and understand.[63]

Of those in sample A giving other suggestions, 3 suggested more illustration; 8 said a different illustration was needed; 6 said more information would help; 7 suggested a different color or more color; 5 said the writing style could be improved; 2 suggested deleting the by-line and penalty statement; 2 suggested moving this material to the back; and two suggested a Spanish version.

Sample B respondents gave similar suggestions with 10 saying more information was needed; 8 suggesting a different illustration, 5 suggesting more illustration, and 2 suggesting that the illustration be reduced in size.

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[62] See Table 62, Appendix A

[63] See Table 63, Appendix A

In estimating homemakers' acceptance and use of this publication, more than 19 percent of the Aides in sample A and close to 22 percent of those in sample B said all of the information contained in Refrigeration would be read. Over 28 percent of the Aides evaluating the 10 pt. type version and better than 51 percent of the sample B respondents said homemakers would read most of it.

Over 50 percent of those receiving the version with smaller type said homemakers would read only some of the material, while this response was given by only about half as many (25.5 percent) of the respondents seeing the material in 14 pt. type. None of the respondents in either sample felt the material would be totally rejected by the homemakers.[64]

A slightly higher percentage of the Aides in sample A felt that most of the homemakers would remember what they read. Over 10 percent of the Aides seeing the 10 pt. version and better than 13 percent of sample B said many would remember.

Almost 48 percent of sample A and the majority in sample B said only some would remember. Of the Aides in sample A, better than 18 percent said a few or very few would remember, while almost half as many in sample B gave this response.[65]

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[64]See Table 64, Appendix A

[65]See Table 65, Appendix A

The majority of respondents in each sample said that Refrigeration was convincing or very convincing. About 21 percent of the Aides in sample A and just over 20 percent in sample B said it was only somewhat convincing.

Better than 12 percent of those evaluating the 10 pt. version and about a third as many in sample B said the publication was only slightly convincing. One Aide in each sample said it wasn't convincing at all.[66]

About 38 percent of the Aides in sample A and close to 32 percent of those receiving the larger type version said that Refrigeration could be made more convincing.[67]

Of the Aides in sample A making suggestions for improving the persuasiveness of the publication, only 3 suggested using larger type. None of the Aides in sample B suggested changing type size.[68]

Other suggestions from those receiving the smaller type version represented about 41 percent of the total sample and included 24 recommendations that more information be provided. Eight said the illustration should be changed; 3 said more illustrations were needed; 2 said a Spanish version would help; 8 said the illus-

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[66] See Table 66, Appendix A

[67] See Table 67, Appendix A

[68] See Table 68, Appendix A

tration should be reduced in size; and 1 suggested the use of "Madison Avenue techniques." Other suggestions from those evaluating the 14 pt. type version included 30 recommendations for more information and 10 for using a different illustration.

The majority of respondents in each sample said that the publication was very attractive or attractive enough. Almost 16 percent of the Aides evaluating the smaller type version said it was only slightly attractive, while less than half that percentage in sample B gave that response. More than three times as many of those seeing Refrigeration in the larger type version called the publication unattractive.[69]

Almost 31 percent of sample A said the publication could be made more attractive. About 22.5 percent of the Aides evaluating the version in larger type gave the same opinion.[70]

Less than a third of those in sample A making suggestions for improving the attractiveness of Refrigeration said larger type would help, but these responses represent about 10 percent of the total sample. None in sample B suggested altering the type size.[71]

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[69] See Table 69, Appendix A

[70] See Table 70, Appendix A

[71] See Table 71, Appendix A

Other suggestions from those evaluating the 10 pt. type version included 18 for a different illustration; 6 said more color was needed; 6 suggested a different color of paper; 3 said more information was needed; 2 suggested moving the by-line and penalty statement to the back of the sheet, and 2 suggested deleting the by-line and penalty statement.

Responses from those receiving the 14 pt. version included 17 suggestions for a different illustration; 6 for a different color of paper; 5 for more information; 3 for more illustrations; and 1 each for reducing the size of the illustration and more color.

Only slightly more than 2 percent of those seeing Refrigeration in 14 pt. type listed type size as the thing they liked best about the publication. None of the Aides in sample A mentioned type size when asked what they liked best.[72]

Aides in sample A mentioning something they liked about the publication accounted for almost 84 percent of the sample. Their responses included 29 comments about content; 24 said they liked the color best; 21 mentioned clarity of message, 18 commented on the illustration; and 3 said they liked everything.

Of those seeing Refrigeration in 14 pt. type, most

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[72]See Table 72, Appendix A

mentioned content or paper color, with 43 responses each. The illustration was mentioned by 15 Aides in this sample and there were 32 comments regarding clarity of message. Aides in each group also mentioned brevity and general appearance.

More than 10 percent of the Aides receiving the publication in 10 pt. type said type size was the thing they liked least about Refrigeration. Close to 39 percent of this sample mentioned something other than type size when asked what they liked least. None of the Aides in sample B objected to the size of type.[73]

Of the Aides in sample A mentioning things they did not particularly like about Refrigeration, 23 said they disliked the illustration; 13 said there wasn't enough information; 6 objected to the color; 1 said it should have been printed in Spanish; and 1 said the information should have been spread over both sides of the sheet.

Aides in sample B objected to the limited amount of information and the illustration, with 26 and 24 mentions, respectively. Five Aides in sample B mentioned color; 1 complained that the paper wasn't punched for a 3-ring binder; 1 objected to the writing style; and there was an irrelevant comment about the questionnaire.

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[73]See Table 73, Appendix A

Homemakers' evaluations

Almost 70 percent of the homemakers who received the publication printed in 10 pt. type and over 75 percent of those in sample B remembered the publication. Almost 8 percent of the sample A respondents and close to 7 percent of those in sample B said Refrigeration was the only one of the three publications they could remember.[74]

About 28.5 percent of the homemakers in sample A and more than 31 percent of those who saw the larger type version said they liked Refrigeration best of the three. None of the respondents in either sample mentioned type size as a reason for preference.[75]

Of the 135 homemakers in sample A who said they liked Refrigeration best, 91 cited content; 17 said they needed the information; 8 said they liked it best because it was easier to read and understand than the other two; 6 said color was the reason; 4 mentioned the illustration; and 1 each said brevity and because it was the only one she could remember. Seven homemakers in this sample didn't respond when asked why they liked Refrigeration best.

Of the 161 homemakers in sample B who said this was the publication they liked best, 82 gave content as the reason, 38 said it was because they needed the informa-

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[74] See Table 74, Appendix A

[75] See Table 75, Appendix A

tion; 5 cited color; 4 said it was easier to read and understand than the other two; 3 said they didn't know why they liked Refrigeration best; and 23 did not respond.

Over 27 percent of the homemakers evaluating the 10 pt. type version, and more than 20 percent of sample B, said Refrigeration was the publication they liked least of the three. Of those in sample A giving this response, almost 7 percent said it was because of type size. None of the sample B respondents mentioned type size as a reason for liking Refrigeration least.[76]

Of the 111 homemakers in sample A who gave other reasons, 58 said they already knew the information in the publication; 22 said there wasn't enough information; 14 didn't like the illustration; 3 mentioned color; 2 said the other topics were more important; 2 said only that Refrigeration wasn't appealing; 2 said they couldn't understand it; and 1 said there would be too much work to do if one were to follow the advice given in Refrigeration. There were 4 who said they didn't know why they liked it least and there were 3 uninterpretable responses. Of those in sample A saying they liked Refrigeration least, 11 gave no response when asked why.

Of the 94 homemakers in sample B who gave other reasons for liking it least, 69 said they already knew all

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[76] See Table 76, Appendix A

the information; 8 said there wasn't enough information; 7 didn't like the illustration; 1 wasn't interested in the topic; 1 said it was too simple; and 3 said they didn't know why they liked it least. There were 5 uninterpretable responses and 11 homemakers in this sample failed to respond when asked why they liked Refrigeration least.

When asked what they learned from this publication, over 71 percent of those who received the 10 pt. type version and over 79 percent of those in sample B were able to repeat information contained in Refrigeration.[77] Of these respondents, over 30 percent in sample A and about 36.5 percent in sample B were able to list additional information when asked if they could remember other points made in the publication.[78]

Almost 80 percent of the homemakers evaluating the version printed in smaller type and over 95 percent of those in sample B said Refrigeration was easy to read and understand.[79]

Of those saying they didn't find it easy to read and understand, over 22 percent of the homemakers who saw the smaller type version (12 respondents) said larger type

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[77] See Table 77, Appendix A

[78] See Table 78, Appendix A

[79] See Table 79, Appendix A

would help. None of the homemakers in sample B made a suggestion for varying type size when considering ways to improve the readability of Refrigeration. Over 50 percent of those in sample A who made recommendations suggested something other than varying type size.[80]

Of those in sample A giving other suggestions, 10 said a different color would help; 7 called for a Spanish language version; 5 suggested more information; 3 said smaller words should be used; 2 recommended additional illustration; 2 said a different illustration was needed; 1 couldn't read; and 1 said she didn't know how the publication could be made easier to read and understand. Of the 4 responses given by homemakers in sample B when asked how the publication could be improved, 1 wasn't sure; 1 couldn't read; and there was a single suggestion each for more information and more illustrations.

More than 68 percent of those evaluating the version printed in smaller type and over 75 percent of sample B said Refrigeration contained enough information. Other evaluations of the amount of information given in the publication were almost equally distributed between the two samples.[81]

When asked if they had started doing anything dif-

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[80] See Table 80, Appendix A

[81] See Table 81, Appendix A

ferent as a result of reading Refrigeration, more than 33 percent of those who received the smaller type version and about 46.5 percent of the homemakers in sample B gave a positive response. When these respondents were asked to explain, about 9.4 percent in sample A and over 10 percent of the sample B respondents who said they had changed mentioned something unrelated to the publication. The Aides reported observed changes in behavior on about 8.5 percent of the sample A questionnaires and about 11 percent of those returned from sample B.[82]

As was suggested in the previous discussions of similar responses reported on questionnaires dealing with Household Pests and Fight Germs, the statistical differences between homemaker-reported and Aide-observed changes in behavior do not necessarily represent contradictory responses. Many of the things mentioned by homemakers when asked if they were doing anything different could have been performed without coming to the attention of the ENEP Aides.

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[82]See Table 82, Appendix A

IV. SUMMARY AND CONCLUSIONS

Within the limitations of this study it may be concluded that printed materials are more acceptable to ENEP Aides when they are printed in 14 point or larger type, when they are illustrated, and when they are printed on colored paper.

It should be noted that Aides participating in this study indicated that paper color was important to them in terms of appearance, but the printing of Household Pests on white paper did not have an effect on their evaluation of the readability or utility of the publication.

Aides evaluating the nonillustrated version of Fight Germs indicated that illustration of such material was not only important to them in terms of appearance, but they also believe illustrations improve the readability and utility of publications used in their program. Aides evaluating the illustrated version of Fight Germs gave several recommendations that the illustration be changed. These responses suggest that communicative, rather than decorative, illustrations would be more acceptable to the Aides.

Type size was important to the Aides in terms of making the material easier to read, but those evaluating Refrigeration in 10 point type did not seem to believe that smaller type seriously hampers the utility or educa-

tional value of printed materials. Aides evaluating the version of Refrigeration printed in 10 point type did demonstrate a greater tendency to give lower estimates of the amount of material that would be read by homemakers and how many of them would remember what they read. It was not possible, within the confines of this study, to ascertain whether these tendencies were related to the type size variable or the respondents' familiarity with the reading habits of the homemakers they serve.

In most cases, differences in responses between the samples were not great. This feature of the returns may be attributed to the tendency of Aides--regardless of which version of which title they were evaluating--to believe that need for and interest in the subject matter were high, that the publications would be useful in answering questions about food sanitation, that they were written well or fairly well, contained enough information, and were easy to read and understand.

It is possible that ENEP Aides would be more critical of publication design if they were asked to evaluate materials for which they perceived limited interest and need. In such a situation, more significant differences might be observed in responses.

The hypothesis that type size, paper color, and illustration are related to changes in the behavior of those exposed to information through printed materials should be

studied further before conclusions are drawn.

While it is true that homemakers exposed to the hypothetically superior publications reported changes in behavior with greater frequency than those who saw the alternative versions, these differences are offset by the lower incidence of Aide-observed changes in behavior.

The statistical differences between homemakers' reported and Aide-observed changes in behavior cannot be interpreted as contradictory responses because of the possibility that Aides might not observe all behavior which resulted from homemakers learning something by reading the publications used in this study. These differences do, however, introduce doubt about the meaning of collected data.

In interviews, regardless of which version of which title was being investigated, the majority of homemakers in all samples reported that they could remember reading the publication in question.

Except for those exposed to the smaller type version of Refrigeration, about 80 percent of the homemakers in each sample were able to cite content from the publication discussed in the interview when asked, "What did you learn from this leaflet?" Those receiving version A of Refrigeration who could mention information from the publication accounted for almost 72 percent of that sample.

Of all titles discussed, the design variables under

study were cited with as much frequency as, or with less frequency than, need for or interest in subject matter when homemakers were asked why they liked a particular title best or least and when they offered suggestions for making the publications easier to read.

Although Fight Germs was selected for studying the illustration variable, it was noted that many homemakers made suggestions that the ink-paper color combination be changed when asked how the publication could be made easier to read or when they explained why they liked this title least of the three. These responses appeared with much greater frequency among those who saw the nonillustrated version.[83] Similar responses appeared in the questionnaires returned from Aides evaluating the two versions of Fight Germs.[84]

While Aides indicated that colored stock was of some importance in terms of eye appeal, these responses indicate that contrast between ink and paper colors must be maintained at a level which will help assure legibility.

Based on the data discussed in the preceding pages, and taking the limitations of the study into account, it

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[83] See pages 32 through 34 and Tables 49 and 53, Appendix A

[84] See pages 25 and 30 as well as Tables 36 and 46, Appendix A

may be concluded that printed materials prepared for use in the Expanded Nutrition Education Program should be printed in 14 point or larger type with illustrations that help illuminate subject matter.

When interest in subject matter is perceived to be limited, it may be necessary to consider colored paper as a factor which might draw attention to the material, but care should be taken in the selection of color to help maintain legibility.

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Appendix A

Tables

Table 1. Distribution of food sanitation publications by reporting units as divided into groups for the purposes of the study

Group Number	Counties in Reporting Units	Publications Received and Version	Number of Aides in Group
1	Allegheny, Cambria, Crawford, Jefferson-Elk-Clearfield-Clarion, Schuylkill, York	Household Pests A Fight Germs A Refrigeration B	56
2	Bedford, Carbon-Monroe, Chester, Greene, Mercer, Philadelphia	Household Pests A Fight Germs B Refrigeration A	56
3	Berks, Delaware, Juniata-Mifflin, Lackawanna, Lawrence, Montgomery	Household Pests B Fight Germs A Refrigeration A	56
4	Cumberland-Perry, Fayette, Luzerne, Lycoming, Tioga, Westmoreland	Household Pests B Fight Germs A Refrigeration B	56
5	Bradford-Sullivan, Erie, Franklin-Adams, Lancaster, Montour-Union-Snyder-Northumberland, Somerset	Household Pests A Fight Germs B Refrigeration B	56
6	Blair-Huntingdon, Bucks, Fulton, Potter-McKean-Cameron, Washington, Wayne-Pike	Household Pests B Fight Germs B Refrigeration A	55

Table 2. Distribution of responses from ENEP Aides in evaluation of Household Pests, Question 1:

How many of the families you serve need this information?

	Version A (color)		Version B (white)	
Total returns	119		124	
	Responses	Percent	Responses	Percent
All	13	10.924	26	20.968
Most	45	37.815	37	29.839
Many	25	21.008	26	20.968
Some	26	21.849	24	19.355
Few	9	07.563	9	07.258
None	0	--	0	--
No response	1	00.840	2	01.613

Table 3. Distribution of responses from ENEP Aides in evaluation of Household Pests, Question 2:

Have you had any questions regarding this topic from the families you serve?

	Version A (color)		Version B (white)	
Total returns	119		124	
	Responses	Percent	Responses	Percent
Many	14	11.765	12	09.677
Some	44	36.975	57	45.968
A few	30	25.200	16	12.903
Very few	14	11.765	18	14.516
None	17	14.285	19	15.323
No response	0	--	2	01.613

Table 4. Distribution of responses from ENEP Aides in evaluation of Household Pests, Question 3:

How well does this publication help answer questions related to food sanitation?

	Version A (color)		Version B (white)	
Total returns	119		124	
	Responses	Percent	Responses	Percent
Very well	42	35.294	72	58.065
Fairly well	54	45.378	43	34.678
Of some help	17	14.286	8	06.452
Of little help	4	03.361	1	00.806
Of no help at all	0	--	0	--
No response	0	--	0	--

Table 5. Distribution of responses from ENEP Aides in evaluation of Household Pests, Question 4:

Does the publication present enough information?

	Version A (color)		Version B (white)	
Total returns	119		124	
	Responses	Percent	Responses	Percent
Too much	0	--	0	--
Somewhat more than needed	1	00.840	1	00.806
Enough	97	81.512	104	83.871
Somewhat less than needed	11	09.244	9	07.258
Too little	7	05.882	8	06.452
No response	3	02.521	2	01.613

Table 6. Distribution of responses from ENEP Aides in evaluation of Household Pests, Question 5:

Is the material well-written?

	Version A (color)		Version B (white)	
Total returns	119		124	
	Responses	Percent	Responses	Percent
Very well	71	59.663	85	68.548
Fairly well	46	38.655	37	29.839
Poorly	0	--	1	00.806
Very poorly	0	--	0	--
No response	2	01.680	1	00.806

Table 7. Distribution of responses from ENEP Aides in evaluation of Household Pests, Question 6:

Is the publication easy to read and understand?

	Version A (color)		Version B (white)	
Total returns	119		124	
	Responses	Percent	Responses	Percent
Very easy	81	68.067	93	74.999
Fairly easy	31	26.050	26	20.968
A little difficult	5	04.202	3	02.419
Very hard	0	--	0	--
No response	2	01.680	2	01.613

Table 8. Distribution of responses from ENEP Aides in evaluation of Household Pests, Question 7:

Could the publication be made easier to read and understand?

	Version A (color)		Version B (white)	
Total returns	119		124	
	Responses	Percent	Responses	Percent
Yes	16	13.445	9	07.258
No	75	63.025	87	70.161
No opinion	24	20.167	25	20.161
No response	4	03.361	3	02.419

Table 9. Distribution of responses from ENEP Aides in evaluation of Household Pests, Question 8:

If you answered "yes" to question 7, briefly state how the publication can be improved.

	Version A (color)		Version B (white)	
Total returns*	15		8	
	Responses	Percent	Responses	Percent
Related to stock color	0	--	0	--
Other responses	15	100.00	8	100.00

*includes responses given by those who did not respond in the positive to question 7

Table 10. Distribution of responses from ENEP Aides in evaluation of Household Pests, Question 9:

Will the homemakers you serve read this material?

	Version A (color)		Version B (white)	
Total returns	119		124	
	Responses	Percent	Responses	Percent
All of it	26	21.849	23	18.548
Most of it	58	48.739	60	48.387
Some of it	33	27.731	35	28.225
None of it	1	00.840	1	00.806
No response	1	00.840	5	04.032

Table 11. Distribution of responses from ENEP Aides in evaluation of Household Pests, Question 10:

Do you think the material will be remembered by the homemakers you serve?

	Version A (color)		Version B (white)	
Total returns	119		124	
	Responses	Percent	Responses	Percent
Most will remember	26	21.849	41	33.065
Many will	20	16.807	12	09.677
Some will	56	47.058	54	43.548
A few will	13	10.924	10	08.065
Very few will	3	02.521	3	02.419
None will	1	00.840	1	00.806
No response	0	--	3	02.419

Table 12. Distribution of responses from ENEP Aides in evaluation of Household Pests, Question 11:

Is the publication convincing?

	Version A (color)		Version B (white)	
Total returns	119		124	
	Responses	Percent	Responses	Percent
Very convincing	24	20.168	43	34.677
Convincing	75	63.025	61	49.194
Somewhat convincing	13	10.924	12	09.677
Slightly convincing	3	02.521	5	04.032
Not convincing at all	3	02.521	1	00.806
No response	1	00.840	2	01.613

Table 13. Distribution of responses from ENEP Aides in evaluation of Household Pests, Question 12:

Could the publication be made more convincing?

	Version A (color)		Version B (white)	
Total returns	119		124	
	Responses	Percent	Responses	Percent
Yes	17	14.286	11	08.871
No	62	52.100	78	62.903
No opinion	36	30.252	31	24.999
No response	5	04.202	4	03.226

Table 14. Distribution of responses from ENEP Aides in evaluation of Household Pests, Question 13:

If you answered "yes" to question 12, briefly explain how the publication could be made more convincing.

	Version A (color)		Version B (white)	
Total returns*	18		12	
	Responses	Percent	Responses	Percent
Related to stock color	0	--	1	08.333
Other responses	18	100.00	11	91.667

*includes responses from those who did not answer "yes" to question 12

Table 15. Distribution of responses from ENEP Aides in evaluation of Household Pests, Question 14:

Is the publication attractive?

	Version A (color)		Version B (white)	
Total returns	119		124	
	Responses	Percent	Responses	Percent
Very attractive	42	35.294	32	25.806
Attractive enough	57	47.899	55	44.355
Slightly attractive	7	05.882	16	12.903
Slightly unattractive	3	02.521	9	07.258
Unattractive	5	04.202	8	06.452
Very unattractive	3	02.521	2	01.613
No response	2	01.680	2	01.613

Table 16. Distribution of responses from ENEP Aides in evaluation of Household Pests, Question 15:

Could the publication be made more attractive?

	Version A (color)		Version B (white)	
Total returns	119		124	
	Responses	Percent	Responses	Percent
Yes	19	15.966	27	21.774
No	64	53.781	61	49.194
No opinion	30	25.209	31	24.999
No response	6	05.042	5	04.032

Table 17. Distribution of responses from ENEP Aides in evaluation of Household Pests, Question 16:

If you answered "yes" to question 15, explain how the publication could be made more attractive.

	Version A (color)		Version B (white)	
Total returns*	19		31	
	Responses	Percent	Responses	Percent
Related to stock color	4	21.053	21	67.774
Other responses	15	78.947	10	32.258

*includes responses from those who did not answer "yes" to question 15

Table 18. Distribution of responses from ENEP Aides in evaluation of Household Pests, Question 17:

What did you like best about this publication?

	Version A (color)		Version B (white)	
Total returns	119		124	
	Responses	Percent	Responses	Percent
Stock color	36	30.252	4	03.226
Other	75	63.025	107	86.290
No response	8	06.723	13	10.484

Table 19. Distribution of responses from ENEP Aides in evaluation of Household Pests, Question 18:

What did you like least about this publication?

	Version A (color)		Version B (white)	
Total returns	119		124	
	Responses	Percent	Responses	Percent
Stock color	0	--	17	13.709
Other	31	26.050	29	23.387
No response or expressed complete satisfaction	88	73.949	78	62.903

Table 20. Distribution of responses from homemakers in evaluation of Household Pests, Question 1:

Do you remember these leaflets?

	Version A (color)		Version B (white)	
Total returns	528		461	
	Responses	Percent	Responses	Percent
One of three remembered	326	61.742	234	50.759
One of two remembered	44	08.333	30	06.508
Only one remembered	34	06.439	33	07.158
No response	124	23.485	164	35.575

Table 21. Distribution of responses from homemakers in evaluation of Household Pests, Question 2:

Which of the three did you like best?

	Version A (color)		Version B (white)	
Total returns	528		461	
	Responses	Percent	Responses	Percent
Liked best	148	28.030	153	33.189
Why?				
Total returns	148		153	
Related to stock color	2	01.351	5	03.268
Other responses	131	88.514	135	88.235
No response	15	10.135	13	08.497

Table 22. Distribution of responses from homemakers in evaluation of Household Pests, Question 3:

Which of the three did you like least?

	Version A (color)		Version B (white)	
Total returns	528		461	
	Responses	Percent	Responses	Percent
Liked least	100	18.939	102	22.126
Why:				
Total returns	100		102	
Related to stock color	0	--	4	03.922
Other responses	87	87.000	82	80.392
No response	13	13.000	16	15.686

Table 23. Distribution of responses from homemakers in evaluation of Household Pests, Question 16:

What did you learn from this leaflet?

	Version A (color)		Version B (white)	
Total returns	528		461	
	Responses	Percent	Responses	Percent
One item	116	21.970	98	21.258
Two items	114	21.591	93	20.174
Three items	72	13.636	78	16.920
Four items	56	10.606	36	07.809
Five items	52	09.848	57	12.364
No response	118	22.348	99	21.475

Table 24. Distribution of responses from homemakers in evaluation of Household Pests, Question 17:

Do you remember any of the other points made?

	Version A (color)		Version B (white)	
Total returns	410		362	
	Responses	Percent	Responses	Percent
Respondent lists other tips	125	30.488	100	27.624
Can't remember anything else	194	47.317	198	54.696
No response	91	22.195	64	17.680

Table 25. Distribution of responses from homemakers in evaluation of Household Pests, Question 18:

Did you find this leaflet easy to read and understand?

	Version A (color)		Version B (white)	
Total returns	528		461	
	Responses	Percent	Responses	Percent
Yes	469	88.826	386	83.731
No	15	02.841	27	05.857
Can't remember	21	03.977	30	06.508
No response	23	04.356	18	03.905

Table 26. Distribution of responses from homemakers in evaluation of Household Pests, Question 19:

How could this leaflet be made easier for you to read?

	Version A (color)		Version B (white)	
Total returns	15		27	
	Responses	Percent	Responses	Percent
Related to stock color	1	06.667	2	07.407
Other responses	4	26.667	17	62.963
No response	10	66.667	8	29.630

Table 27. Distribution of responses from homemakers in evaluation of Household Pests, Question 20:

Was there enough information, too much, or too little?

	Version A (color)		Version B (white)	
Total returns	528		461	
	Responses	Percent	Responses	Percent
Too much	11	02.083	20	04.338
Slightly too much	13	02.462	20	04.338
Just enough	398	75.379	336	72.885
A little less than enough	47	08.902	46	09.978
Far too little	27	05.114	13	02.820
No response	32	06.061	26	05.640

Table 28. Distribution of responses from homemakers in evaluation of Household Pests, Question 21:

Have you started doing anything different as a result of reading this leaflet?

	Version A (color)		Version B (white)	
Total returns	528		461	
	Responses	Percent	Responses	Percent
Aide reported observed change	64	12.121	44	09.544
Yes	231	43.750	153	33.189
No	205	38.826	209	45.336
Not sure	50	09.470	50	10.846
No response	42	07.955	49	10.629
If yes, explain.				
Total returns	231		153	
	Responses	Percent	Responses	Percent
Related to publication	213	92.208	142	92.810
Unrelated	7	03.030	3	01.961
No response	11	04.762	8	05.229

Table 29. Distribution of responses from ENEP Aides in evaluation of Fight Germs, Question 1:

How many of the families you serve need this information?

	Version A (illustrated)		Version B (not illustrated)	
Total returns	126		118	
	Responses	Percent	Responses	Percent
All	36	28.571	25	21.186
Most	46	36.507	47	39.830
Many	17	13.492	24	20.339
Some	20	15.873	19	16.102
Few	5	03.968	2	01.695
None	0	--	0	--
No response	2	01.587	1	00.847

Table 30. Distribution of responses from ENEP Aides in evaluation of Fight Germs, Question 2:

Have you had any questions regarding this topic from the families you serve?

	Version A (illustrated)		Version B (not illustrated)	
Total returns	126		118	
	Responses	Percent	Responses	Percent
Many	6	04.761	9	07.627
Some	57	47.619	37	31.356
A few	23	18.254	34	28.814
Very few	14	11.111	15	12.712
None	25	19.841	24	20.339
No response	1	00.794	0	--

Table 31. Distribution of responses from ENEP Aides in evaluation of Fight Germs, Question 3:

How well does this publication help answer questions related to food sanitation?

	Version A (illustrated)		Version B (not illustrated)	
Total returns	126		118	
	Responses	Percent	Responses	Percent
Very well	76	60.317	43	36.441
Fairly well	34	26.984	54	45.763
Of some help	4	03.174	16	13.559
Of little help	9	07.142	4	03.389
Of no help at all	0	--	0	--
No response	3	02.380	1	00.847

Table 32. Distribution of responses from ENEP Aides in evaluation of Fight Germs, Question 4:

Does this publication present enough information?

	Version A (illustrated)		Version B (not illustrated)	
Total returns	126		118	
	Responses	Percent	Responses	Percent
Too much	1	00.794	0	--
Somewhat more than needed	3	02.380	4	03.389
Enough	94	74.603	86	72.881
Somewhat less than needed	13	10.317	8	06.779
Too little	14	11.111	20	16.949
No response	1	00.794	0	--

Table 33. Distribution of responses from ENEP Aides in evaluation of Fight Germs, Question 5:

Is the material well-written?

	Version A (illustrated)		Version B (not illustrated)	
Total returns	126		118	
	Responses	Percent	Responses	Percent
Very well	87	69.048	52	44.068
Fairly well	37	29.365	60	50.847
Poorly	1	00.794	5	04.237
Very poorly	0	--	0	--
No response	1	00.794	1	00.847

Table 34. Distribution of responses from ENEP Aides in evaluation of Fight Germs, Question 6:

Is the publication easy to read and understand?

	Version A (illustrated)		Version B (not illustrated)	
Total returns	126		118	
	Responses	Percent	Responses	Percent
Very easy	96	76.190	63	53.389
Fairly easy	20	15.873	45	38.136
A little difficult	8	06.349	7	05.932
Very hard	0	--	3	02.542
No response	2	01.587	0	--

Table 35. Distribution of responses from ENEP Aides in evaluation of Fight Germs, Question 7:

Could the publication be made easier to read and understand?

	Version A (illustrated)		Version B (not illustrated)	
Total returns	126		118	
	Responses	Percent	Responses	Percent
Yes	26	20.635	35	29.661
No	74	58.730	58	49.153
No opinion	19	15.079	26	22.034
No response	7	05.555	0	--

Table 36. Distribution of responses from ENEP Aides in evaluation of Fight Germs, Question 8:

If you answered "yes" to question 7, briefly state how the publication can be improved.

	Version A (illustrated)		Version B (not illustrated)	
Total returns*	25		33	
	Responses	Percent	Responses	Percent
Related to illustration	17	68.000	18	54.545
Other responses	8	32.000	15	45.455

*includes responses from those who did not answer "yes" to question 7

Table 37. Distribution of responses from ENEP Aides in evaluation of Fight Germs, Question 9:

Will the homemakers you serve read this material?

	Version A (illustrated)		Version B (not illustrated)	
Total returns	126		118	
	Responses	Percent	Responses	Percent
All of it	26	20.635	14	11.864
Most of it	62	49.206	44	37.288
Some of it	32	25.397	56	47.457
None of it	1	00.794	2	01.695
No response	5	03.968	2	01.695

Table 38. Distribution of responses from ENEP Aides in evaluation of Fight Germs, Question 10:

Do you think the material will be remembered by the homemakers you serve?

	Version A (illustrated)		Version B (not illustrated)	
Total returns	126		118	
	Responses	Percent	Responses	Percent
Most will remember	24	19.048	13	11.016
Many will	18	14.286	12	10.169
Some will	67	53.175	68	57.627
A few will	10	07.937	17	14.407
Very few will	2	01.587	6	05.085
None will	1	00.794	1	00.847
No response	4	03.175	1	00.847

Table 39. Distribution of responses from ENEP Aides in evaluation of Fight Germs, Question 11:

Is the publication convincing?

	Version A (illustrated)		Version B (not illustrated)	
Total returns	126		118	
	Responses	Percent	Responses	Percent
Very convincing	27	21.429	11	09.322
Convincing	66	52.381	67	56.779
Somewhat convincing	20	15.873	21	17.796
Slightly convincing	10	07.937	13	11.017
Not convincing at all	0	--	5	04.237
No response	3	02.381	1	00.847

Table 40. Distribution of responses from ENEP Aides in evaluation of Fight Germs, Question 12:

Could the publication be made more convincing?

	Version A (illustrated)		Version B (not illustrated)	
Total returns	126		118	
	Responses	Percent	Responses	Percent
Yes	39	30.952	37	31.356
No	57	45.238	44	37.288
No opinion	23	18.254	36	30.508
No response	6	04.762	1	00.847

Table 41. Distribution of responses from ENEP Aides in evaluation of Fight Germs, Question 13:

If you answered "yes" to question 12, briefly explain how the publication could be made more attractive.

	Version A (illustrated)		Version B (not illustrated)	
Total returns*	36		35	
	Responses	Percent	Responses	Percent
Related to illustration	21	58.333	24	68.571
Other responses	15	41.667	11	31.429

*includes responses from those who did not answer "yes" to question 12.

Table 42. Distribution of responses from ENEP Aides in evaluation of Fight Germs, Question 14:

Is the publication attractive?

	Version A (illustrated)		Version B (not illustrated)	
Total returns	126		118	
	Responses	Percent	Responses	Percent
Very attractive	44	34.921	17	14.407
Attractive enough	57	45.238	54	45.763
Slightly attractive	14	11.111	26	22.034
Slightly unattractive	6	04.762	8	06.779
Unattractive	0	--	9	07.627
Very unattractive	0	--	2	01.695
No response	5	03.968	3	02.542

Table 43. Distribution of responses from ENEP Aides in evaluation of Fight Germs, Question 15:

Could the publication be made more attractive?

	Version A (illustrated)		Version B (not illustrated)	
Total returns	126		118	
	Responses	Percent	Responses	Percent
Yes	26	20.635	47	39.831
No	67	53.175	32	27.119
No opinion	22	17.460	32	27.119
No response	11	08.730	7	05.932

Table 44. Distribution of responses from ENEP Aides in evaluation of Fight Germs, Question 16:

If you answered "yes" to question 15, explain how the publication could be made more attractive.

	Version A (illustrated)		Version B (not illustrated)	
Total returns*	27		51	
	Responses	Percent	Responses	Percent
Related to illustration	19	70.370	43	84.314
Other responses	8	29.630	8	15.686

*includes responses from those who did not answer "yes" to question 15

Table 45. Distribution of responses from ENEP Aides in evaluation of Fight Germs, Question 17:

What did you like best about this publication?

	Version A (illustrated)		Version B (not illustrated)	
Total returns	126		118	
	Responses	Percent	Responses	Percent
Illustration	20	15.873	--	--
Other responses	93	73.809	108	91.524
No response	12	09.524	10	08.475

Table 46. Distribution of responses from ENEP Aides in evaluation of Fight Germs, Question 18:

What did you like least about this publication?

	Version A (illustrated)		Version B (not illustrated)	
Total returns	126		118	
	Responses	Percent	Responses	Percent
Illustration (lack of for Version B)	21	16.666	24	20.339
Other responses	25	19.841	40	33.898
No response or expressed complete satisfaction	79	62.984	54	45.763

Table 47. Distribution of responses from homemakers in evaluation of Fight Germs, Question 1:

Do you remember these leaflets?

	Version A (illustrated)		Version B (not illustrated)	
Total returns	484		504	
	Responses	Percent	Responses	Percent
One of three remembered	267	55.165	291	57.738
One of two remembered	36	07.438	21	04.167
Only one remembered	27	05.579	20	03.968
No response	154	31.818	172	34.127

Table 48. Distribution of responses from homemakers in evaluation of Fight Germs, Question 2:

Which of the three did you like best?

	Version A (illustrated)		Version B (not illustrated)	
Total returns	484		504	
	Responses	Percent	Responses	Percent
Liked best	105	21.694	117	23.214
Why?				
Total returns	105		117	
Illustration	0	--	--	--
Other responses	92	87.619	107	91.453
No response	13	12.381	10	08.547

Table 49. Distribution of responses from homemakers in evaluation of Fight Germs, Question 3:

Which of the three did you like least?

	Version A (illustrated)		Version B (not illustrated)	
Total returns	484		504	
	Responses	Percent	Responses	Percent
Liked least	68	14.050	90	17.857
Why?				
Total returns	68		90	
Illustration or lack of	7	10.294	24	26.667
Other responses	49	72.059	58	64.444
No response	12	17.647	8	08.889

Table 50. Distribution of responses from homemakers in evaluation of Fight Germs, Question 10:

What did you learn from this leaflet?

	Version A (illustrated)		Version B (not illustrated)	
Total returns	484		504	
	Responses	Percent	Responses	Percent
One item	93	19.215	92	18.254
Two items	103	21.281	101	20.040
Three items	86	17.769	95	18.849
Four items	46	09.504	51	10.119
Five items	25	05.165	32	06.349
Six items	43	08.884	33	06.548
No response	88	18.182	100	19.841

Table 51. Distribution of responses from homemakers in evaluation of Fight Germs, Question 11:

Do you remember any of the other points made?

	Version A (illustrated)		Version B (not illustrated)	
Total returns	396		404	
	Responses	Percent	Responses	Percent
Respondent lists other tips	150	37.879	119	29.455
Can't remember anything else	192	48.485	227	56.188
No response	54	13.636	58	14.356

Table 52. Distribution of responses from homemakers in evaluation of Fight Germs, Question 12:

Did you find this leaflet easy to read and understand?

	Version A (illustrated)		Version B (not illustrated)	
Total returns	484		504	
	Responses	Percent	Responses	Percent
Yes	419	86.570	422	83.730
No	22	04.545	37	07.341
Can't remember	21	04.339	26	05.159
No response	22	04.545	19	03.770

Table 53. Distribution of responses from homemakers in evaluation of Fight Germs, Question 13:

How could this leaflet be made easier for you to read?

	Version A (illustrated)		Version B (not illustrated)	
Total returns	22		37	
	Responses	Percent	Responses	Percent
Related to illustration	3	13.636	7	18.919
Other responses	15	68.182	27	72.973
No response	4	18.182	3	08.108

Table 54. Distribution of responses from homemakers in evaluation of Fight Germs, Question 14:

Was there enough information, too much, or too little?

	Version A (illustrated)		Version B (not illustrated)	
Total returns	484		504	
	Responses	Percent	Responses	Percent
Too much	11	02.273	9	01.786
Slightly too much	10	02.066	18	03.571
Just enough	370	76.446	368	73.016
A little less than enough	45	09.298	53	10.516
Far too little	15	03.099	19	03.770
No response	33	06.818	37	07.341

Table 55. Distribution of responses from homemakers in evaluation of Fight Germs, Question 15:

Have you started doing anything different as a result of reading this leaflet?

	Version A (illustrated)		Version B (not illustrated)	
Total returns	484		504	
	Responses	Percent	Responses	Percent
Aide reported observed change	57	11.777	61	12.103
Yes	218	45.041	180	35.714
No	160	33.058	214	42.460
Not sure	52	10.744	61	12.103
No response	54	11.157	49	09.722
If yes, explain.				
Total returns	218		180	
	Responses	Percent	Responses	Percent
Related to publication	192	88.073	158	87.778
Unrelated	10	04.587	13	07.222
No response	16	07.339	9	04.910

Table 56. Distribution of responses from ENEP Aides in evaluation of Refrigeration, Question 1:

How many of the families you serve need this information?

	Version A (10 pt. type)		Version B (14 pt. type)	
Total returns	113		129	
	Responses	Percent	Responses	Percent
All	19	16.814	19	14.729
Most	39	34.513	40	31.008
Many	14	12.389	24	18.605
Some	30	26.549	33	25.581
Few	10	08.849	12	09.302
None	0	--	1	00.775
No response	1	00.885	0	--

Table 57. Distribution of responses from ENEP Aides in evaluation of Refrigeration, Question 2:

Have you had any questions regarding this topic from the families you serve?

	Version A (10 pt. type)		Version B (14 pt. type)	
Total returns	113		129	
	Responses	Percent	Responses	Percent
Many	7	06.195	11	08.527
Some	45	39.823	63	48.837
A few	28	24.779	25	19.379
Very few	10	08.849	15	11.628
None	22	19.469	15	11.628
No response	1	00.885	1	00.775

Table 58. Distribution of responses from ENEP Aides in evaluation of Refrigeration, Question 3:

How well does this publication help answer questions related to food sanitation?

	Version A (10 pt. type)		Version B (14 pt. type)	
Total returns	113		129	
	Responses	Percent	Responses	Percent
Very well	38	33.628	52	40.309
Fairly well	46	40.707	57	44.186
Of some help	20	17.699	16	12.403
Of little help	8	07.079	2	01.550
Of no help at all	0	--	1	00.775
No response	1	00.885	1	00.775

Table 59. Distribution of responses from ENEP Aides in evaluation of Refrigeration, Question 4:

Does the publication present enough information?

	Version A (10 pt. type)		Version B (14 pt. type)	
Total returns	113		129	
	Responses	Percent	Responses	Percent
Too much	1	00.885	0	--
Somewhat more than needed	2	01.769	3	02.326
Enough	79	69.911	81	62.790
Somewhat less than needed	6	05.309	18	13.953
Too little	24	21.239	23	17.829
No response	1	00.885	4	03.101

Table 60. Distribution of responses from ENEP Aides in evaluation of Refrigeration, Question 5:

Is the material well-written?

	Version A (10 pt. type)		Version B (14 pt. type)	
Total returns	113		129	
	Responses	Percent	Responses	Percent
Very well	56	49.558	81	62.790
Fairly well	48	42.478	45	34.884
Poorly	7	06.195	2	01.550
Very poorly	2	01.769	0	--
No response	0	--	1	00.775

Table 61. Distribution of responses from ENEP Aides in evaluation of Refrigeration, Question 6:

Is the publication easy to read and understand?

	Version A (10 pt. type)		Version B (14 pt. type)	
Total returns	113		129	
	Responses	Percent	Responses	Percent
Very easy	66	58.407	105	81.395
Fairly easy	25	22.124	21	16.279
A little difficult	16	14.159	3	02.326
Very hard	4	03.539	0	--
No response	2	01.769	0	--

Table 62. Distribution of responses from ENEP Aides in evaluation of Refrigeration, Question 7:

Could the publication be made easier to read and understand?

	Version A (10 pt. type)		Version B (14 pt. type)	
Total returns	113		129	
	Responses	Percent	Responses	Percent
Yes	36	31.858	22	17.054
No	57	50.442	88	68.216
No opinion	19	16.814	17	13.178
No response	1	00.885	1	00.775

Table 63. Distribution of responses from ENEP Aides in evaluation of Refrigeration, Question 8:

If you answered "yes" to question 7, briefly state how the publication can be improved.

	Version A (10 pt. type)		Version B (14 pt. type)	
Total returns*	58		25	
	Responses	Percent	Responses	Percent
Related to type size	23	39.655	0	—
Other responses	35	60.345	25	100.00

*includes responses from those who did not answer "yes" to question 7

Table 64. Distribution of responses from ENEP Aides in evaluation of Refrigeration, Question 9:

Will the homemakers you serve read this material?

	Version A (10 pt. type)		Version B (14 pt. type)	
Total returns	113		129	
	Responses	Percent	Responses	Percent
All of it	22	19.469	28	21.705
Most of it	32	28.319	66	51.163
Some of it	57	50.442	33	25.581
None of it	0	--	0	--
No response	2	01.769	2	01.550

Table 65. Distribution of responses from ENEP Aides in evaluation of Refrigeration, Question 10:

Do you think the material will be remembered by the homemakers you serve?

	Version A (10 pt. type)		Version B (14 pt. type)	
Total returns	113		129	
	Responses	Percent	Responses	Percent
Most will remember	24	21.239	24	18.605
Many will	12	10.619	17	13.178
Some will	54	47.788	75	58.139
A few will	20	17.699	7	05.426
Very few will	1	00.885	5	03.876
None will	0	--	0	--
No response	2	01.769	0	--

Table 66. Distribution of responses from ENEP Aides in evaluation of Refrigeration, Question 11:

Is the publication convincing?

	Version A (10 pt. type)		Version B (14 pt. type)	
Total returns	113		129	
	Responses	Percent	Responses	Percent
Very convincing	12	10.619	21	16.279
Convincing	61	53.982	75	58.139
Somewhat convincing	24	21.239	26	20.155
Slightly convincing	14	12.389	5	03.876
Not convincing at all	1	00.885	1	00.775
No response	1	00.885	1	00.775

Table 67. Distribution of responses from ENEP Aides in evaluation of Refrigeration, Question 12:

Could the publication be made more convincing?

	Version A (10 pt. type)		Version B (14 pt. type)	
Total returns	113		129	
	Responses	Percent	Responses	Percent
Yes	43	38.053	41	31.783
No	43	38.053	51	39.535
No opinion	25	22.124	32	24.806
No response	2	01.769	5	03.876

Table 68. Distribution of responses from ENEP Aides in evaluation of Refrigeration, Question 13:

If you answered "yes" to question 12, briefly explain how the publication could be made more convincing.

	Version A (10 pt. type)		Version B (14 pt. type)	
Total returns*	49		40	
	Responses	Percent	Responses	Percent
Related to type size	3	06.122	0	--
Other responses	46	93.878	40	100.00

*includes responses from those who did not answer "yes" to question 12

Table 69. Distribution of responses from ENEP Aides in evaluation of Refrigeration, Question 14:

Is the publication attractive?

	Version A (10 pt. type)		Version B (14 pt. type)	
Total returns	113		129	
	Responses	Percent	Responses	Percent
Very attractive	33	29.204	48	37.209
Attractive enough	53	46.903	57	44.186
Slightly attractive	18	15.929	9	06.977
Slightly unattractive	4	03.539	3	02.256
Unattractive	3	02.655	10	07.752
Very unattractive	0	--	0	--
No response	2	01.769	2	01.550

Table 70. Distribution of responses from ENEP Aides in evaluation of Refrigeration, Question 15:

Could the publication be made more attractive?

	Version A (10 pt. type)		Version B (14 pt. type)	
Total returns	113		129	
	Responses	Percent	Responses	Percent
Yes	35	30.973	29	22.480
No	40	35.398	61	47.287
No opinion	32	28.319	34	26.356
No response	5	04.425	5	03.876

Table 71. Distribution of responses from ENEP Aides in evaluation of Refrigeration, Question 16:

If you answered "yes" to question 15, explain how the publication could be made more attractive.

	Version A (10 pt. type)		Version B (14 pt. type)	
Total returns*	46		34	
	Responses	Percent	Responses	Percent
Related to type size	11	23.913	0	--
Other responses	35	76.087	34	100.00

*includes responses from those who did not answer "yes" to question 15

Table 72. Distribution of responses from ENEP Aides in evaluation of Refrigeration, Question 17:

What did you like best about this publication?

	Version A (10 pt. type)		Version B (14 pt. type)	
Total returns	113		129	
	Responses	Percent	Responses	Percent
Type size	0	--	3	02.326
Other responses	95	84.071	113	87.596
No response	18	15.[illegible]	13	10.077

Table 73. Distribution of responses from ENEP Aides in evaluation of Refrigeration, Question 18:

What did you like least about this publication?

	Version A (10 pt. type)		Version B (14 pt. type)	
Total returns	113		129	
	Responses	Percent	Responses	Percent
Type size	12	10.619	0	--
Other responses	44	38.938	59	45.736
No response or expressed complete satisfaction	57	50.442	70	54.263

Table 74. Distribution of responses from homemakers in evaluation of Refrigeration, Question 1:

Do you remember these leaflets?

	Version A (10 pt. type)		Version B (14 pt. type)	
Total returns	473		514	
	Responses	Percent	Responses	Percent
One of three remembered	250	52.854	309	60.117
One of two remembered	43	09.091	44	08.560
Only one remembered	37	07.822	35	06.810
No response	143	30.233	126	24.514

Table 75. Distribution of responses from homemakers in evaluation of Refrigeration, Question 2:

Which of the three did you like best?

	Version A (10 pt. type)		Version B (14 pt. type)	
Total returns	473		514	
	Responses	Percent	Responses	Percent
Liked best	135	28.541	161	31.323
Why?				
Total returns	135		161	
Related to type size	0	--	0	--
Other responses	128	94.815	138	85.714
No response	7	05.185	23	14.286

Table 76. Distribution of responses from homemakers in evaluation of Refrigeration, Question 3:

Which of the three did you like least?

	Version A (10 pt. type)		Version B (14 pt. type)	
Total returns	473		514	
	Responses	Percent	Responses	Percent
Liked least	131	27.695	105	20.428
Why?				
Total returns	131		105	
Related to type size	9	06.870	0	—
Other responses	111	84.733	94	89.524
No response	11	08.397	11	10.476

Table 77. Distribution of responses from homemakers in evaluation of Refrigeration, Question 4:

What did you learn from this leaflet?

	Version A (10 pt. type)		Version B (14 pt. type)	
Total returns	473		514	
	Responses	Percent	Responses	Percent
One item	103	21.776	132	25.681
Two items	92	19.450	125	24.319
Three items	92	19.450	90	17.510
Four items	52	10.994	61	11.868
No response	134	28.330	106	20.623

Table 78. Distribution of responses from homemakers in evaluation of Refrigeration, Question 5:

Do you remember any of the other points made?

	Version A (10 pt. type)		Version B (14 pt. type)	
Total returns	339		408	
	Responses	Percent	Responses	Percent
Respondent lists other tips	104	30.678	149	36.520
Can't remember anything else	174	51.327	189	46.324
No response	61	17.994	70	17.157

Table 79. Distribution of responses from homemakers in evaluation of Refrigeration, Question 6:

Did you find this leaflet easy to read and understand?

	Version A (10 pt. type)		Version B (14 pt. type)	
Total returns	473		514	
	Responses	Percent	Responses	Percent
Yes	377	79.704	489	95.136
No	54	11.416	8	01.556
Can't remember	34	07.188	13	02.529
No response	8	01.691	4	00.778

Table 80. Distribution of responses from homemakers in evaluation of Refrigeration, Question 7:

How could the leaflet be made easier for you to read?

	Version A (10 pt. type)		Version B (14 pt. type)	
Total returns	54		8	
	Responses	Percent	Responses	Percent
Related to type size	12	22.222	0	--
Other responses	31	57.407	4	50.000
No response	11	20.370	4	50.000

Table 81. Distribution of responses from homemakers in evaluation of Refrigeration, Question 8:

Was there enough information, too much, or too little?

	Version A (10 pt. type)		Version B (14 pt. type)	
Total returns	473		514	
	Responses	Percent	Responses	Percent
Too much	7	01.480	7	01.362
Slightly too much	16	03.383	16	03.113
Just enough	323	68.288	388	75.486
A little less than enough	69	14.588	59	11.479
Far too little	38	08.034	30	05.837
No response	20	04.228	14	02.724

Table 82. Distribution of responses from homemakers in evaluation of Refrigeration, Question 9:

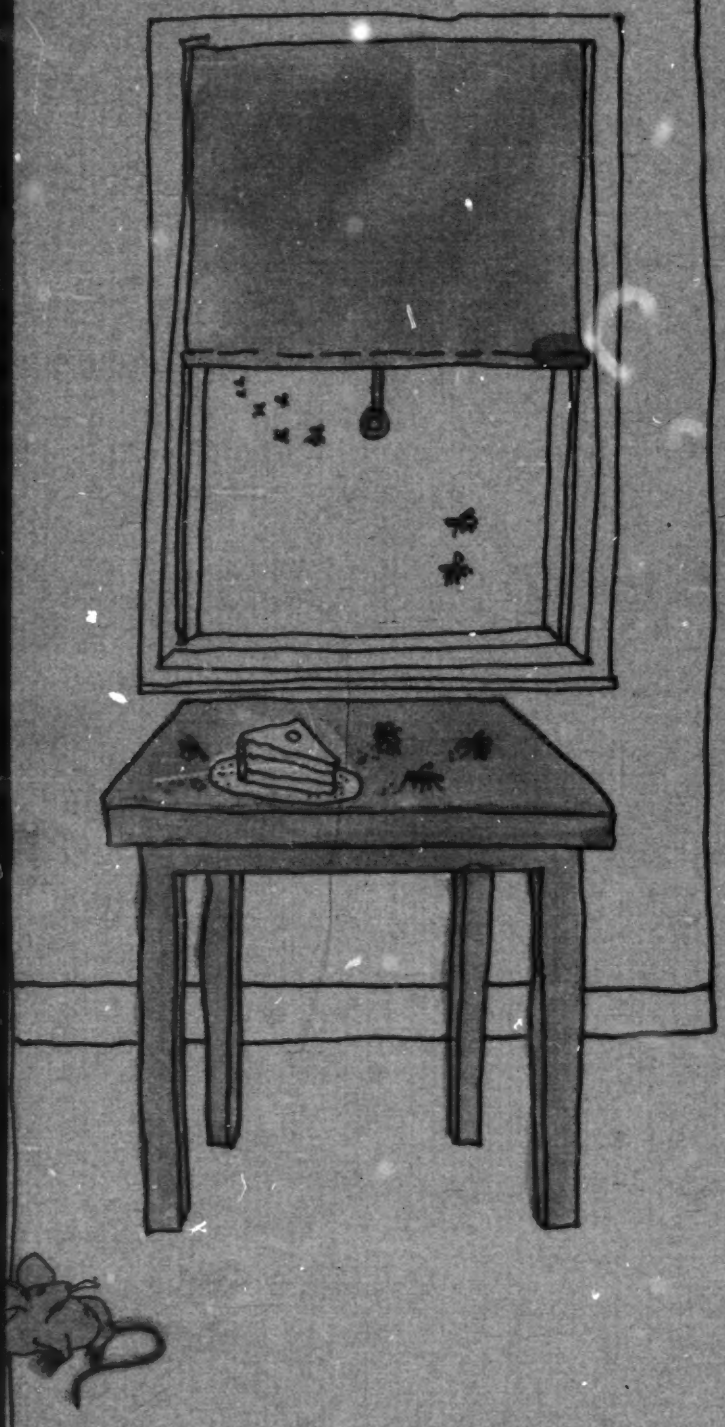
Have you started doing anything different as a result of reading this leaflet?

	Version A (10 pt. type)		Version B (14 pt. type)	
Total returns	473		514	
	Responses	Percent	Responses	Percent
Aide reported observed change	40	08.457	57	11.089
Yes	158	33.404	239	46.498
No	236	49.894	199	38.716
Not sure	47	09.937	55	10.700
No response	32	06.765	21	04.086
If yes, explain.				
Total returns	158		239	
	Responses	Percent	Responses	Percent
Related to publication	136	86.076	209	87.448
Unrelated	15	09.494	25	10.460
No response	7	04.430	5	02.092

Appendix B

Printed Materials Used in the Study

HOUSEHOLD PESTS



Household pests carry germs and spread diseases such as food poisoning, colds and flu, and more serious diseases.

Some common household pests:
- Rats and mice
- Flies and roaches

Your pets often carry ***other*** pests, such as fleas and other insects. Pets can pick up germs from outdoors by getting into garbage, and then transfer the germs to food, utensils, or food-preparation areas. People can catch diseases from the germs that their pets carry. Keeping pets and pests away from food, utensils, and food-preparation areas helps prevent germs and disease from spreading.

Pests cannot live without food.
- Keep garbage in covered metal cans.
- Store all food in covered, metal, glass, or plastic containers.
- Keep all food off the floor. Even crumbs feed cockroaches.

Protect your home from pests.
- Patch holes in walls and floors with scraps of metal.
- Repair screens.
- Keep pets clean and free of pests and germs.

Eliminate pests in the home. Use:

- Rat traps
- Sprays or powders
- Fly swatters
- Pest strips
- Ant and roach aerosals

Read the labels and follow instructions carefully. Sprays, powders, and pest strips should never be used near food or in food-preparation areas.

Prepared by Louise W. Hamilton, Associate Professor of Foods and Nutrition Extension, and Barbara Vidunas, Assistant in Home Economics Extension.

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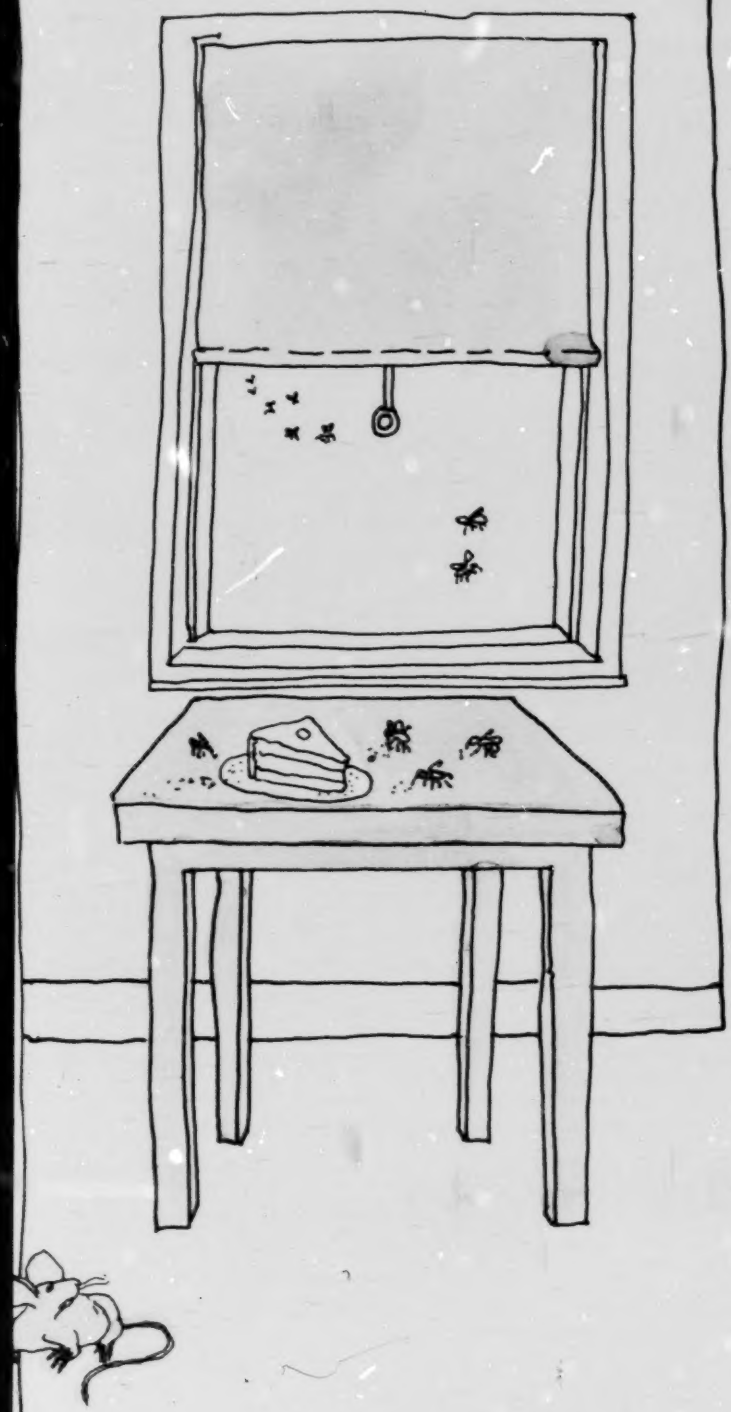
HOUSEHOLD PESTS



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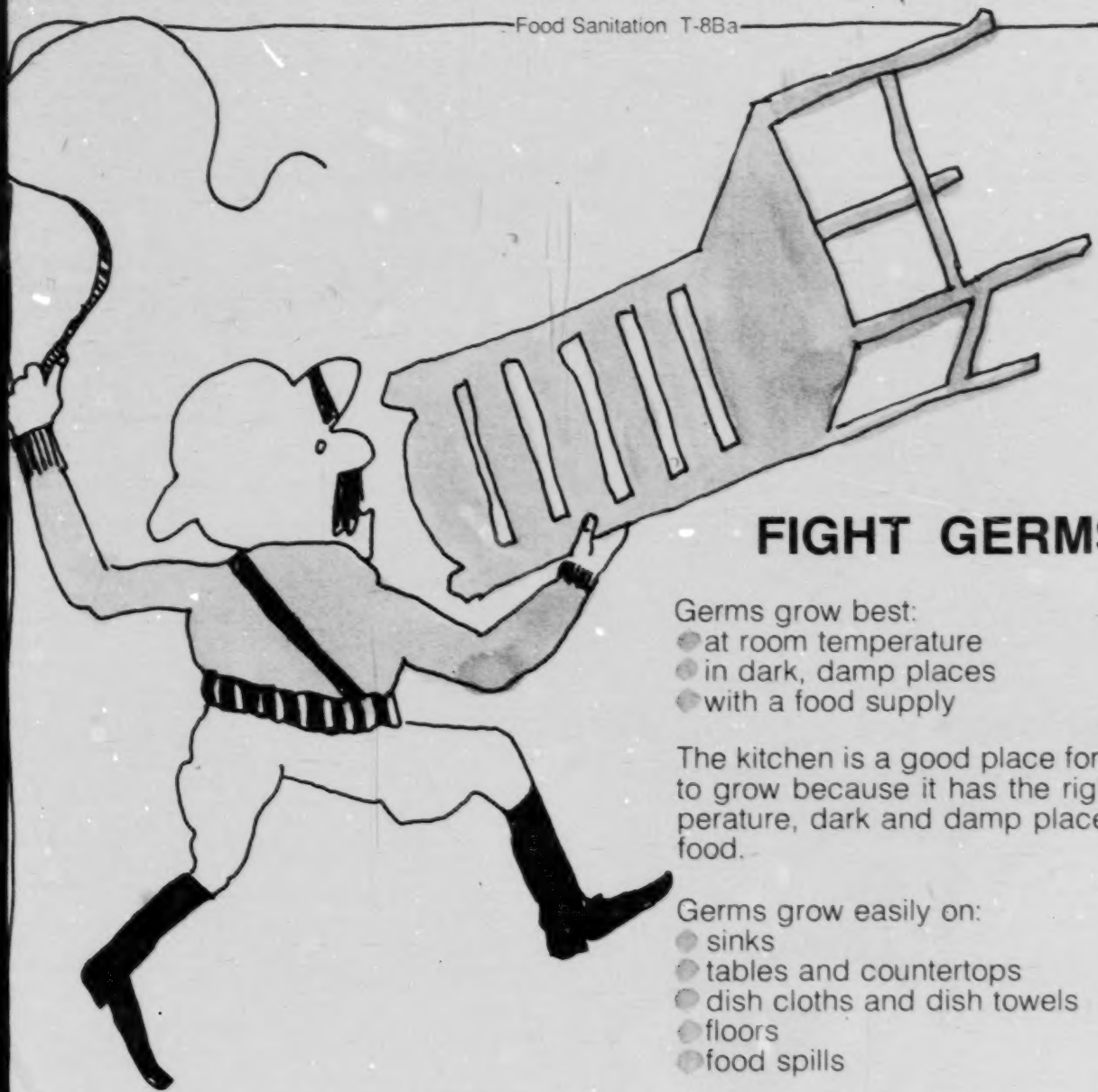

FIGHT GERMS

Germs grow best:
- at room temperature
- in dark, damp places
- with a food supply

The kitchen is a good place for germs to grow because it has the right temperature, dark and damp places, and food.

Germs grow easily on:
- sinks
- tables and countertops
- dish cloths and dish towels
- floors
- food spills

Stop germ growth by:
- cleaning up food spills and crumbs
- cleaning sinks, tables, and countertops
- washing dish towels and dish cloths

To avoid spreading germs, use separate cleaning equipment for:
- floors
- sinks and countertops
- dishes
- hands

Cleaning equipment should never be stored near food because:

- germs from cloths or mops may spread into the food
- detergent may accidentally spill into the food
- cleaning fluid may be mistaken for food

Keep detergents and cleaning fluids out of the reach of children.

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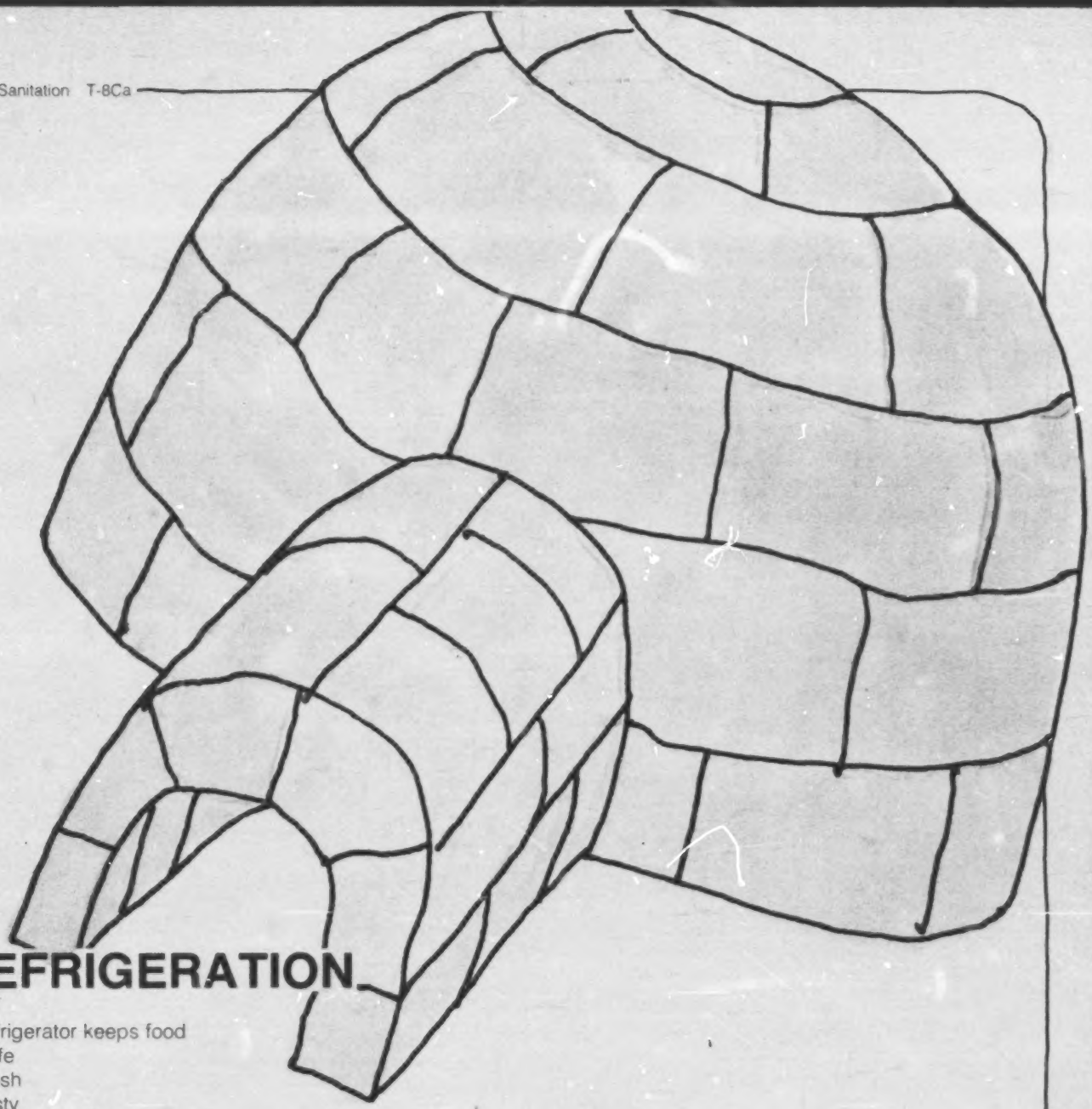

REFRIGERATION

A refrigerator keeps food
- safe
- fresh
- tasty

Germs grow well in foods kept at room temperature. Cold temperatures stop germ growth. When you buy foods which are kept cold at the grocery store, put them in the refrigerator as soon as you get home. If you can't refrigerate cold foods, buy only as much as you can use in four hours.

These are some of the foods you should refrigerate for safety:
- all dairy products
- fresh or smoked meats and fish
- mayonnaise and salad dressing
- leftovers
- foods in cans or jars which have been opened
- baby formula and opened jars of baby food
- any product made with the above ingredients, such as egg salad, tuna salad, pudding, custard, and cream sauce

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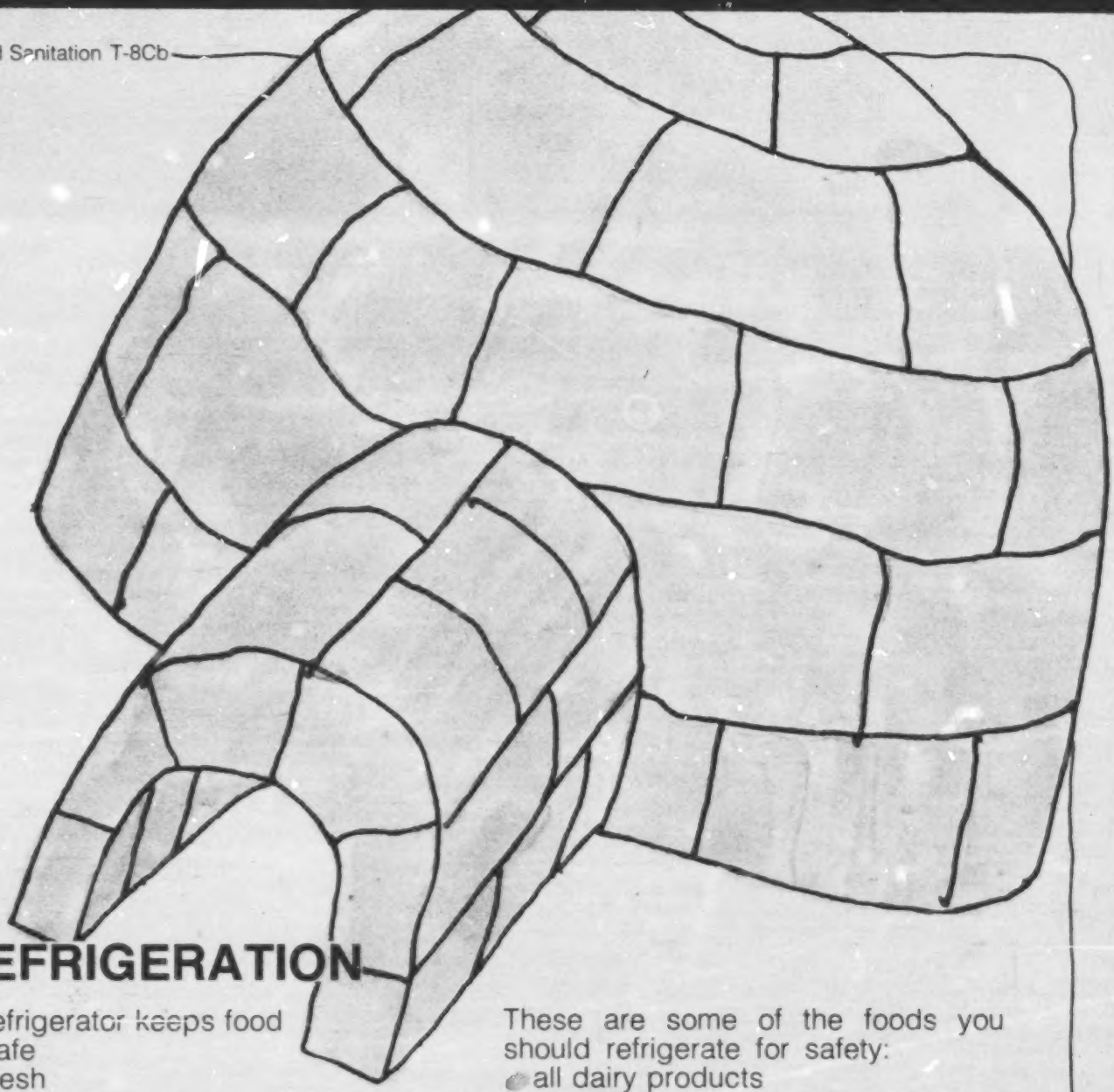

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